

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OIL & GAS OPERATIONS  
GEOLOGICAL SURVEY RECEIVED

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☒2. NAME OF OPERATOR ARCO Oil & Gas Company  
Division of Atlantic Richfield Company

## 3. ADDRESS OF OPERATOR

P.O. Box 5540, Denver, Colorado 80217

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface 960' FSL &amp; 1060' FWL, Sec. 2-33S-4½W

At proposed prod. zone

Approx the same

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

Approximately 15 miles northeast of Panguitch, Utah

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

960'

## 16. NO. OF ACRES IN LEASE

2560

## 17. NO. OF ACRES ASSIGNED

TO THIS WELL

NOT ASSIGNED

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

NONE

## 19. PROPOSED DEPTH

14,450'

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7343' GR

## 22. APPROX. DATE WORK WILL START\*

July 26, 1982

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
22"	16"	65#	600'	1500 sx "H" cmt to surface
14-3/4"	10-3/4"	51#	7200'	1220 sx Natlite 65-35+ 100 "H"
9-1/2"	5-1/2"	17#	14450'	1075 sx Natlite 65-35+ 120 "H" in 2 stages
Contingency	7-5/8"	29.7#	11600'	575 sx Natlite 65-35+ 50 sx "H"

Propose to drill well to sufficient depth to test the Mississippian Fms.

Pursuant to NTL-6, attached are:

Certified Location Plat

Drilling Plan with attachments

Surface Use Plan with attachments

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

W.A. Walther, Jr.

TITLE

District Manager  
of Production

DATE June 23, 1982

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

FOR E. W. GUYNN  
TITLE DISTRICT OIL & GAS SUPERVISOR

DATE

JUL 27 1982

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

State of

CONDITIONS OF APPROVAL ATTACHED  
TO OPERATOR'S COPYFLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
DATED 1/1/80

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

Dixie National Forest  
Powell Ranger District  
P.O. Box 291  
Panguitch, Utah 84759

MINERAL MANAGEMENT  
SERVICE  
OIL & GAS OPERATIONS  
RECEIVED

JUL 12 1982

SALT LAKE CITY, UTAH 2820  
July 7, 1982



Mr. George Diwachak  
Mineral Management Service  
1745 West 1700 South  
Salt Lake City, Utah 84104

Dear George:

Enclosed are the Resource Specialist Reports for the proposed Smith Canyon drill site.

Information relating to recreation, visuals, and hydrology was not available in written form. Consultation with the respective specialists indicated very few problems not already addressed.

A few areas verbally agreed to or recommended to ARCO are documented as follows:

1. That the Smith Canyon Road from the junction with the Sanford Canyon Road to the proposed drill site, would be widened to 16-18 feet with several small sections being re-constructed. ✓ in APD
2. Due to load carrying capabilities of the soil type, need for dust control, and the anticipated season of use, a 6" surface of pit run gravel was recommended. Gravel should be smaller than 2" in diameter, with an estimated volume of 8000 yards. ✓ in APD
3. A local source of gravel was located. Permits for such gravel may be obtained through the Kanab Office of the Bureau of Land Management, in cooperation with Garfield County. ✓
4. It was agreed, with Mr. Peter Tippets, of ARCO, that the portion of the Smith Canyon Road, on National Forest Land, and the estimated area of land needed for the drilling of a water well, would be included in the operating plan, thus circumventing the need for special use permits by the Forest Service.

5. It was also agreed, with Mr. Tippetts, that any water well that may be used at the site will be turned over to the Forest Service at the termination of the drilling contract. Water from the well may be utilized in site restoration efforts and in providing a future potential water source for wildlife. (Water rights, if any, would be subject to an application to the State of Utah)
6. It was agreed with Mr. Tippetts, that all restoration efforts on the site would be completed by October 30, 1983, provided that the site is abandoned. ✓ info
7. A 6' diameter, 40' long, culvert is recommended for the Smith Canyon crossing. ✓ info

By copy of this letter, I am conveying the resource specialist information to Mr. Pete Tippetts of ARCO.

If you have any questions, or if we can be of any additional assistance, please feel free to call me at 676-8815.

Sincerely,



A. CLAIR BALDWIN  
District Forest Ranger

cc: S.O.  
Pete Tippetts  
ARCO Exploration Co.  
P.O. Box 5540  
Denver, Colorado 80217

# USFS ROAD GUIDELINES

## Mile Post

- 0.00 Junction - U.S. 89 & Sanford Creek Road
- 0.40 Sevier River Bridge - Begin dust control.
- 0.90 Sanford Wash - Const. - Large dip - End dust control.
- 1.10 Existing cattleguard and gate.
- 1.55 Existing 40" x 28" x 15' pipe - Arch - Remove and replace with 36" x 24" C.M.P.
- 2.95 Existing cattleguard - Begin 6" pit run surfacing.
- 4.15 Junction - Sanford and Smith Canyon Roads. Begin reconstruction to turnpiked template.
- 4.50 Begin 1st relocation - New construction.
- 4.65 End 1st relocation.
- 4.75 Existing 18" C.M.P.; Remove and replace with new 18" x 30' C.M.P. - Minimum 24" cover over pipe. Live water.
- 5.20 Const. T.O. - Corner of private property. End turnpiked section - Begin outsloped section.
- 5.28 Const. T.O. on point.
- 5.30 Const. rock ford.
- 5.40 Const. rock ford - End 6" pit run - Begin 2nd realignment.
- 5.50 Top of ridge.
- 5.65 End 2nd realignment - Const. rock ford. Begin 6" pit run.
- 5.70 Const. T.O.
- 5.80 Junction to pit run source road. End outsloped section; Begin turnpiked section.
- 6.45 Forest Boundary
- 6.85 Const. T.O.
- 7.00 Const. T.O.
- 7.40 Const. T.O.
- 7.65 Const. T.O.
- 7.80 Flag line to pad. Continue 6" pitrun surfacing to pad location.

- Notes:
1. From M.P. 5.80 to M.P. 10.40, several small, unnecessary curves could be eliminated:
  2. All natural drainages should be dipped unless culverts are installed.
  3. M.P. 0.00 to M.P. 4.15 should be bladed. All ditches and flair ditches should be re-cut.
  4. Dust abatement should be considered adjacent to the private residences.
  5. Bridge structural adequacy should be the responsibility of the O&G permittee.
  6. Pit run surfacing should be 2" max.
  7. Brush debris disposal resulting from the clearing operation should be addressed.
  8. All road work should be in accordance with "Forest Service Standard Specifications for Construction of Roads and Bridges", 1979 addition.

Identification No. 410-82

United States Department of the Interior  
Minerals Management Service  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104-3884

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator ARCO Oil AND GAS COMPANY  
Project Type OIL WELL  
Project Location 960' FSL, 1045' FWL, SEC 2 T 33S, R 4 1/2 W  
Well No. 2 Lease No. U-27242  
Date Project Submitted 7-6-82

FIELD INSPECTION Date 7-28-82

Field Inspection Participants	<u>GEORGE DIWACHAK</u>	<u>MMS</u>
	<u>A. Clair Baldwin, J. Black</u>	<u>USFS</u>
	<u>PETER TIBBITTS</u>	<u>ARCO</u>
	<u>LEONARD HEENEY</u>	<u>ROSS CONST.</u>
	<u>CLARK HOWARD</u>	<u>HOWARD CONST.</u>
	<u>TERRY JACKSON</u>	<u>J.J. COMPANY</u>
	<u>SAM STEGMAN</u>	<u>POWERS ELEVATION</u>

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

JUL 26 1982  
Date Prepared

George J. Diwachak  
Environmental Scientist

I concur

JUL 27 1982  
Date

W. W. Martin FOR E. W. GUYNN  
District Supervisor DISTRICT OIL & GAS SUPERVISOR

# CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private corre- spondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety	1 (7-7-82) 7-14-82	10 (6-22-82)					6	6 (6-28-82)	4.8
2. Unique charac- teristics	1	10					6	6	4.8
3. Environmentally controversial	1	10					6	6	4.8
4. Uncertain and unknown risks	1						6	6	4.8
5. Establishes precedents							6	6	
6. Cumulatively significant							6	6	4.8
7. National Register historic places		10 (6-22-82) 11 (6-26-82)							
8. Endangered/ threatened species	1								
9. Violate Federal, State, local, tribal law	1						6	6	4.8

# CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey  
(Conservation Division, Geological Division, Water Resource Division,  
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement
9. REFERENCE EA No. 410-82
10. TELECON WITH USFS - 6-22-82 - (SEE WELL FILE)
11. TELECON WITH BLM - 6-26-82 (SEE WELL FILE)



ARCO #2

NE





POWERS ELEVATION

OIL WELL ELEVATIONS — LOCATIONS  
ENVIRONMENTAL — ARCHAEOLOGICAL SERVICES  
800 SOUTH CHERRY STREET, SUITE 1201  
DENVER, COLORADO 80222  
PHONE NO. 303/321-2217

*Exhibit #4*

June 21, 1982

Mr. Pete Tibbitts  
Arco Oil & Gas  
P.O. Box 5540  
Denver, CO 80217

Dear Mr. Tibbitts:

Enclosed is the cultural resource survey report for the following Arco Oil & Gas location:

Dixie #2

An intensive pedestrian survey and an inspection of existing records were performed for this location by Powers Elevation. No cultural resources were found either in the literature or pertinent site files, or during our field survey.

In view of this lack of cultural resources, we recommend that the proposed project be allowed to proceed.

If you have any questions regarding this report, please feel free to contact this office.

Sincerely,

*Marcia J. Tate*

Bruce E. Rippeteau, Ph.D.  
Vice-President  
Archaeology Division

BER:sr

cc: Judy Rose, Zone Archaeologist (6)  
Fred P. Frampton, District Archaeologist

enclosures

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☐MULTIPLE  
ZONE ☒

## 2. NAME OF OPERATOR ARCO Oil &amp; Gas Company

Division of Atlantic Richfield Company 303-575-7000

## 3. ADDRESS OF OPERATOR

P.O. Box 5540, Denver, Colorado 80217

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At proposed prod. zone

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Approximately 15 miles northeast of Panguitch, Utah

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LOCATION TO NEAREST  
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(Also to nearest drig. unit line, if any)

960'

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TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

NONE

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## 19. PROPOSED DEPTH

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7343' GR

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RECEIVED

JUL 07 1982

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Surface Use Plan with attachments

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SIGNED

W.A. Walther, Jr.

TITLE

District Manager  
of Production

DATE June 23, 1982

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

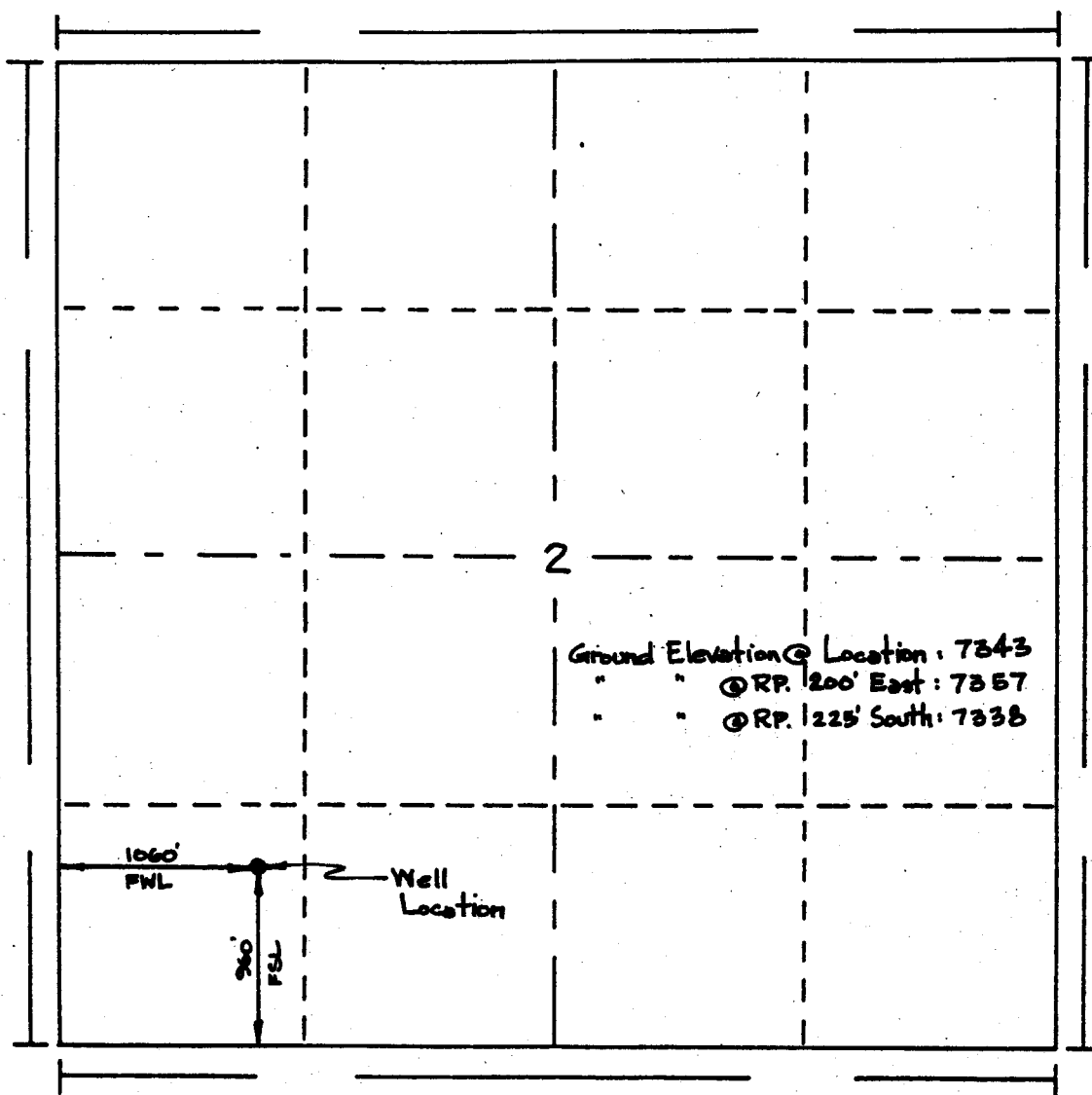
DATE

CONDITIONS OF APPROVAL, IF ANY:



Exhibit #1

R. 4 1/2 W.



T. 33 S.

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado  
has in accordance with a request from PETE TIBBITS  
for ARCO  
determined the location of DIXIE #2  
to be 960' FSL & 1060' FWL of Section 2 Township 33 South  
Range 4 1/2 West of the SALT LAKE Meridian  
GARFIELD County, UTAH

I hereby certify that this plat is an  
accurate representation of a correct  
survey showing the location of

Date: JUNE 16, 1982

T. Nelson  
Licensed Land Surveyor No. 2711  
State of UTAH

Note: Relocate  
portion of  
drainage if  
necessary.

5 FOOT CONTOUR  
INTERVAL  
(typical) ~~~~~

ARCO  
DINE #2  
960 FSL } E-335-412W  
1060 FWL }  
GARFIELD Co., UTAH

$$E_{\text{hibit}} = 1(a)$$

ACCESS ROAD

JUNE 16, 1982  
E. S. STRICKMAN

Drainage  
# 246

**EXCESS**

**B1  
MATERIAL**

Drainage  $\pm 80'$

□ R.P. 225' SOUTH } not to  
 □ R.P. 250' SOUTH } scale

POWERS ELEV. CO.  
RICHFIELD, UTAH

1" = 50'  
C.I. = 5'

C or F is Cot.  
or Fill from existing  
ground to finish  
grade.

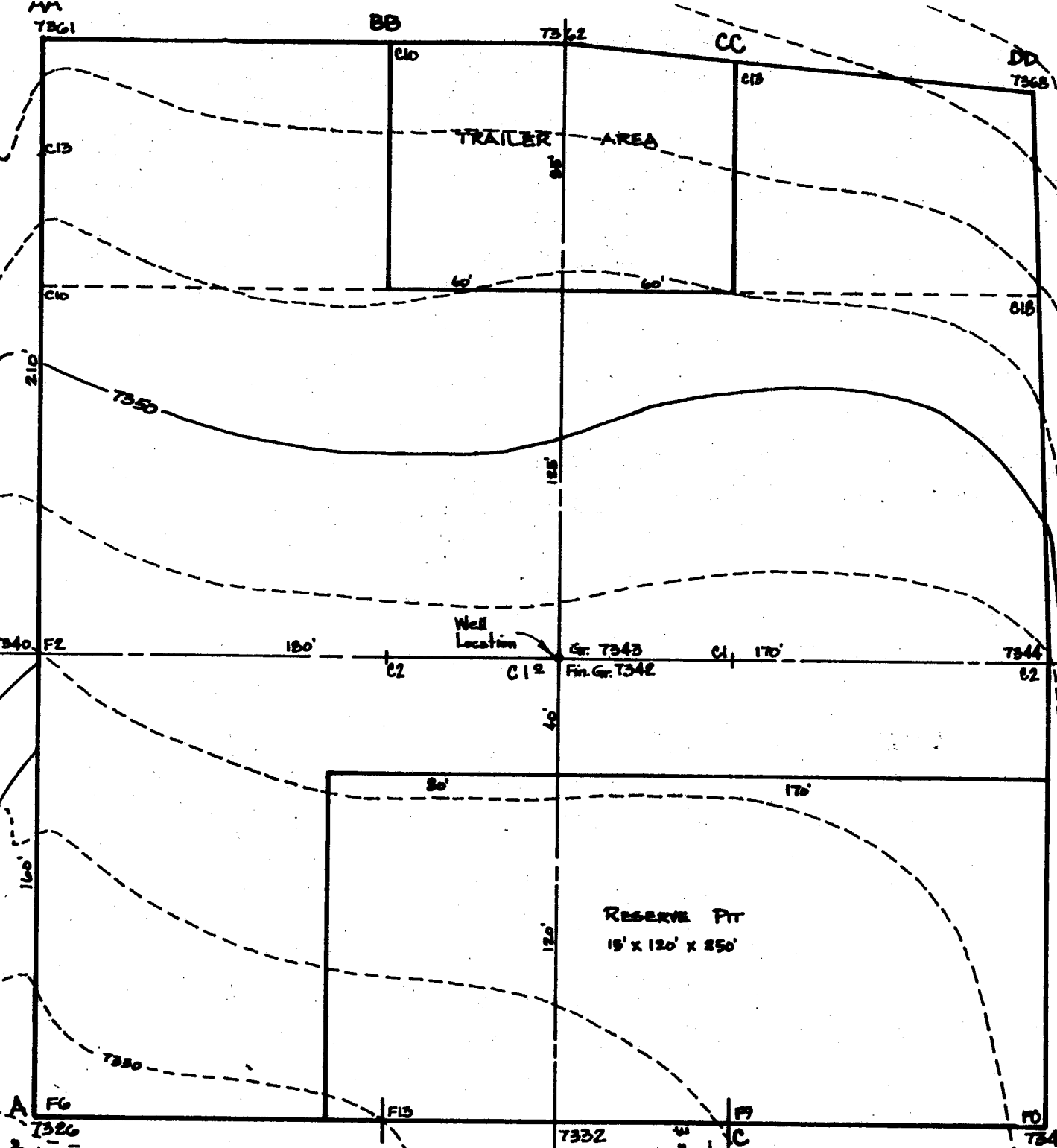
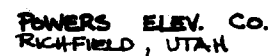
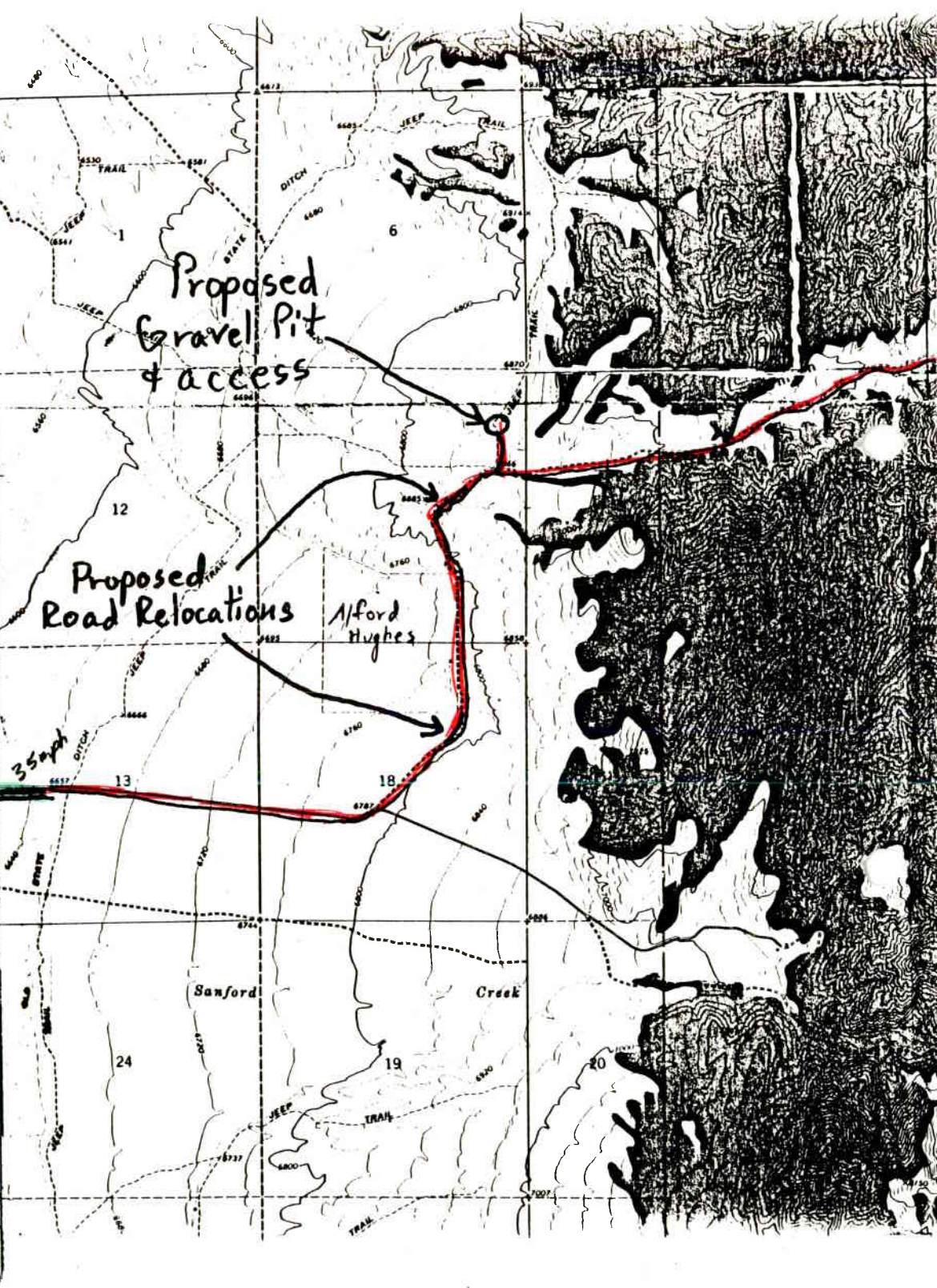
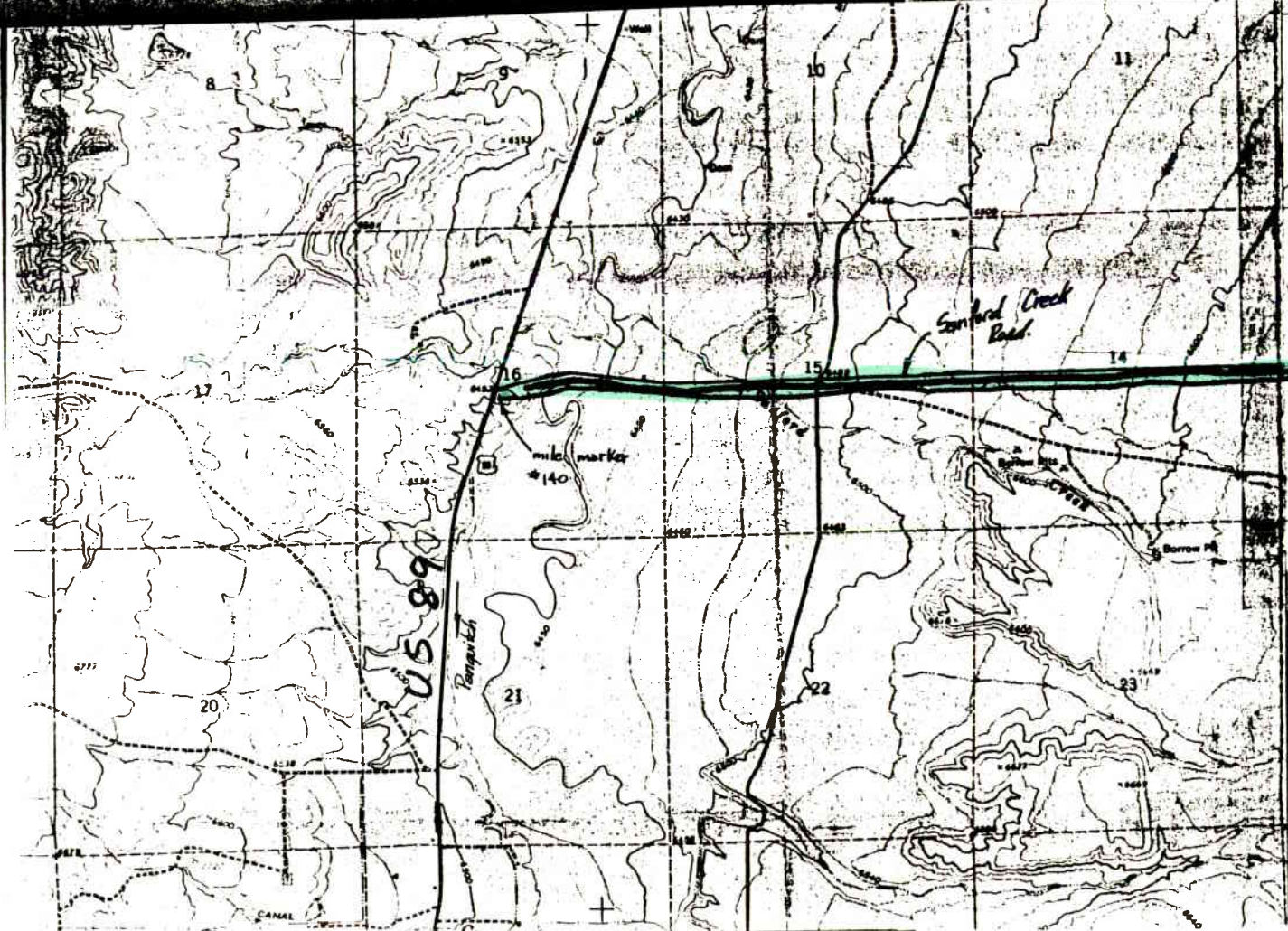
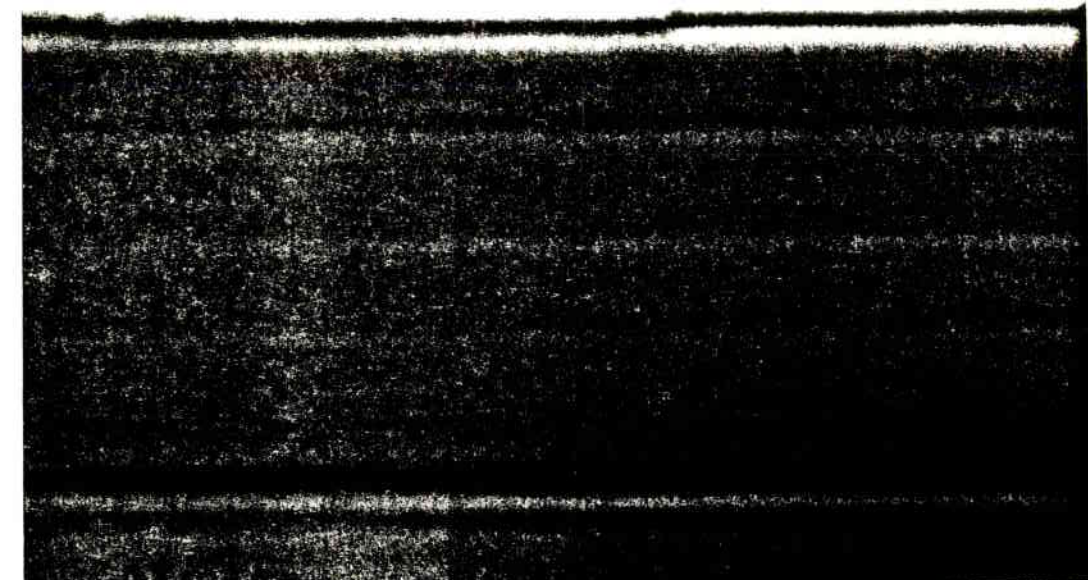


Exhibit #1(b)









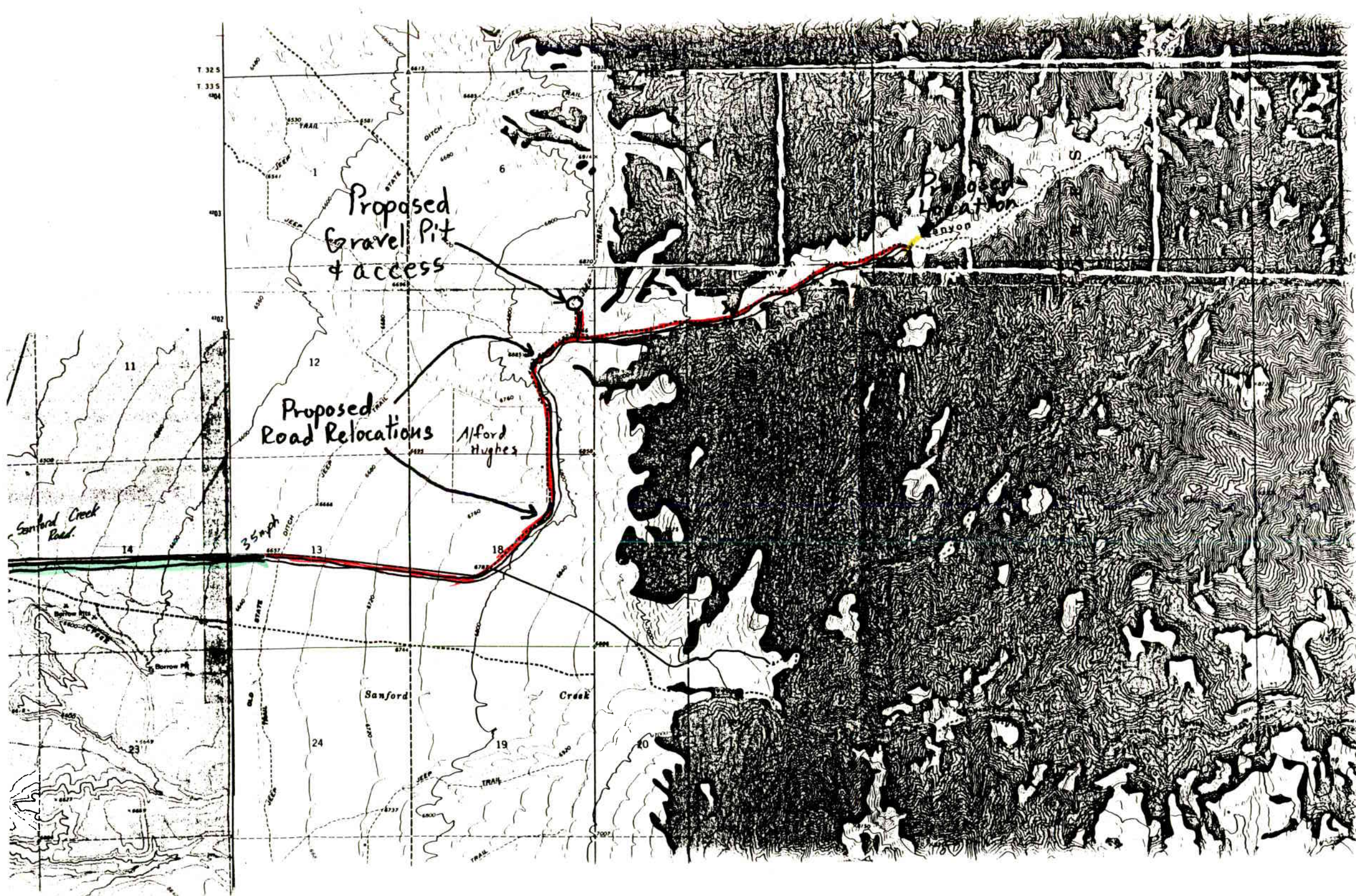
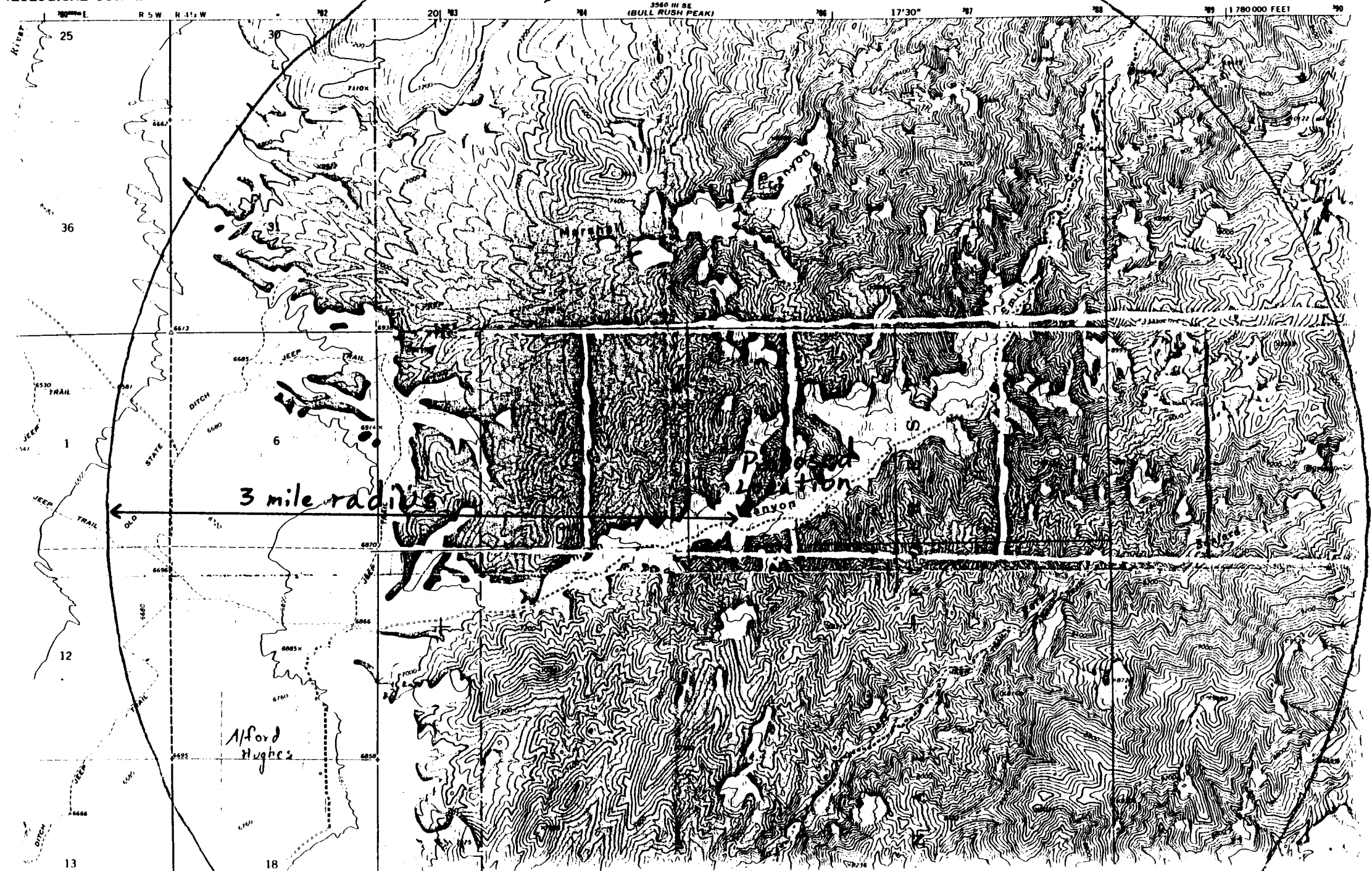


Exhibit #5





EX 1117





PROJECT IDENTIFICATION: A cultural resource survey for Arco Oil & Gas, Dixie Unit #2, well pad and access, Garfield County, Dixie National Forest.

FILE SEARCH: A file search conducted June 14, 1982 with Dixie National Forest and the State of Utah revealed no previously recorded sites or surveys for the project area.

LOCATION: 960 feet FSL & 1060 feet FWL; SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 2, T.33S., R.4 $\frac{1}{2}$ W.

MAP REFERENCE: Blind Spring Mountain, 7.5', 1971.

DATE OF INVESTIGATION: June 15, 1982.

PERSONNEL: Fred P. Frampton, Field Investigator; Bruce E. Rippeteau and Marcia J. Tate, Principal Investigators.

PROPOSED ACTION: At the request of Arco Oil and Gas, A Division of Atlantic Richfield, a ten-acre parcel was surveyed surrounding the centerstake of a proposed 2.9 acre well pad. The survey was conducted June 15, 1982 by Fred P. Frampton on lands administered by the Powell District, Dixie National Forest. In all, including an approximate 400-foot long access road, 10.9 acres were intensively investigated.

ENVIRONMENT: The proposed location is situated in a gently sloping confluence of a small side canyon with Smith Canyon. Smith Canyon is a rather rugged canyon which drains waters from Mt. Dulton, a southern mountain on the Sevier Plateau. Less than two miles to the west the mountains and canyons recede, being replaced by the north/south trending valley which carries the Sevier River northward. The elevation at this site is approximately 7400 feet.

Intermittent flowing Smith Canyon is adjacent to this proposed well pad. Permanent water can be found in Sanford Creek, approximately 2  $\frac{1}{4}$  miles to the south, and the Sevier River 5.5 miles to the west.

Vegetation cover is 70% with fair visibility. In descending order of occurrence were noted big sage, pinon pine, two varieties of rabbitbrush, juniper, various bunch grasses including, blue grama, prickly pear cactus, beeweed, asters, Indian paintbrush, gilia, lypine and beard tongue. In the vicinity were ponderosa pine and mountain mahogany.

Exhibit #4


ENVIRONMENT CONTINUED: Soils are nearly non-existent and are a brown, sandy loam. Most of the ground surface is covered with rock.

FIELD METHODS: The survey was conducted by walking across the ten-acre area surveyed in a series of 15-meter wide, parallel, north/south transects. In this manner the surveyor observed approximately seven meters on either side of each swath. The 400-foot long access road was investigated for the most part within this ten-acre survey. It was also investigated in two linear, 15-meter-wide swaths.

RESULTS: No cultural resources were observed.

NATIONAL REGISTER EVALUATION: Since no sites were found there are no National Register recommendations. Additionally, there are no known sites on or eligible for nomination to the National Register of Historic Places in the area.

RECOMMENDATIONS: Since no sites were found, there should be no effect to cultural resources by this project. Should buried or observed cultural resources be found during construction activities, work should cease and the Forest Archaeologist, Dixie National Forest, should be immediately contacted. We recommend that construction of the Arco Oil and Gas, Dixie #2 well pad and access proceed as planned.

  
\_\_\_\_\_  
Bruce E. Rippeteau                      23                      82  
Principal Investigator                      Date

BER:sr

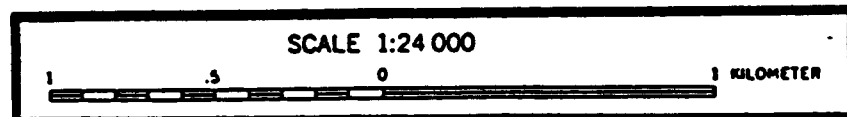
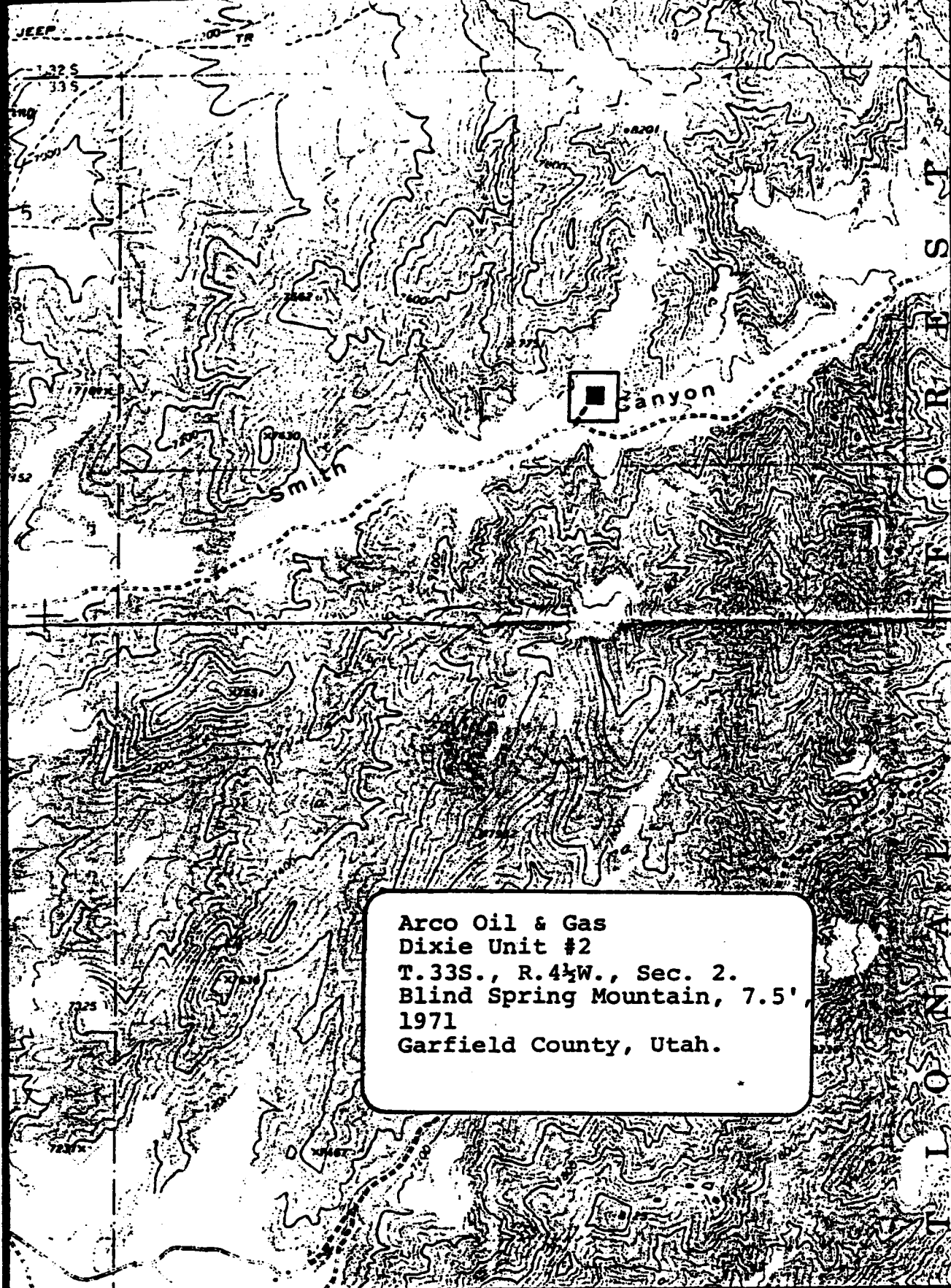
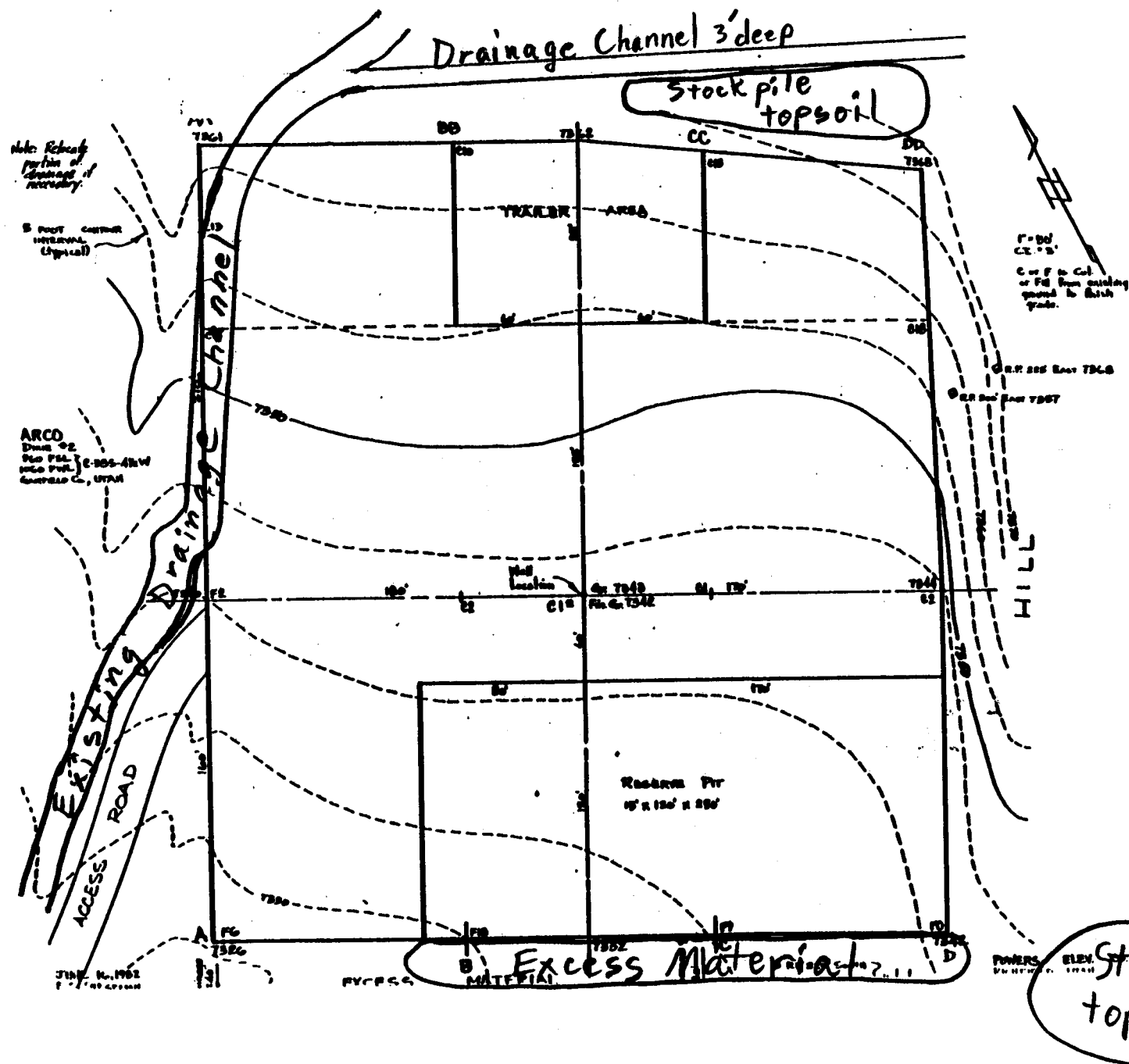
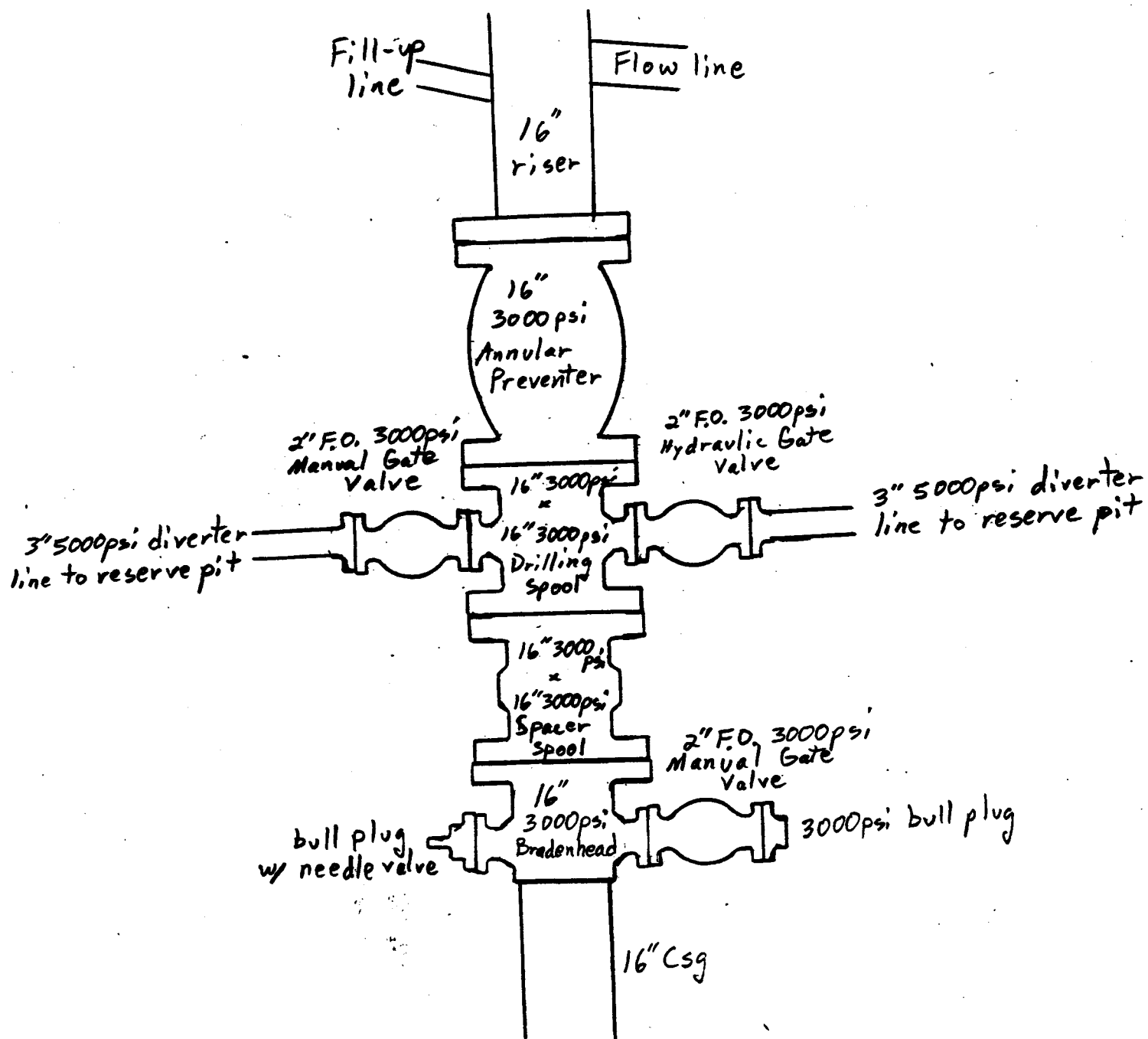


Exhibit #5



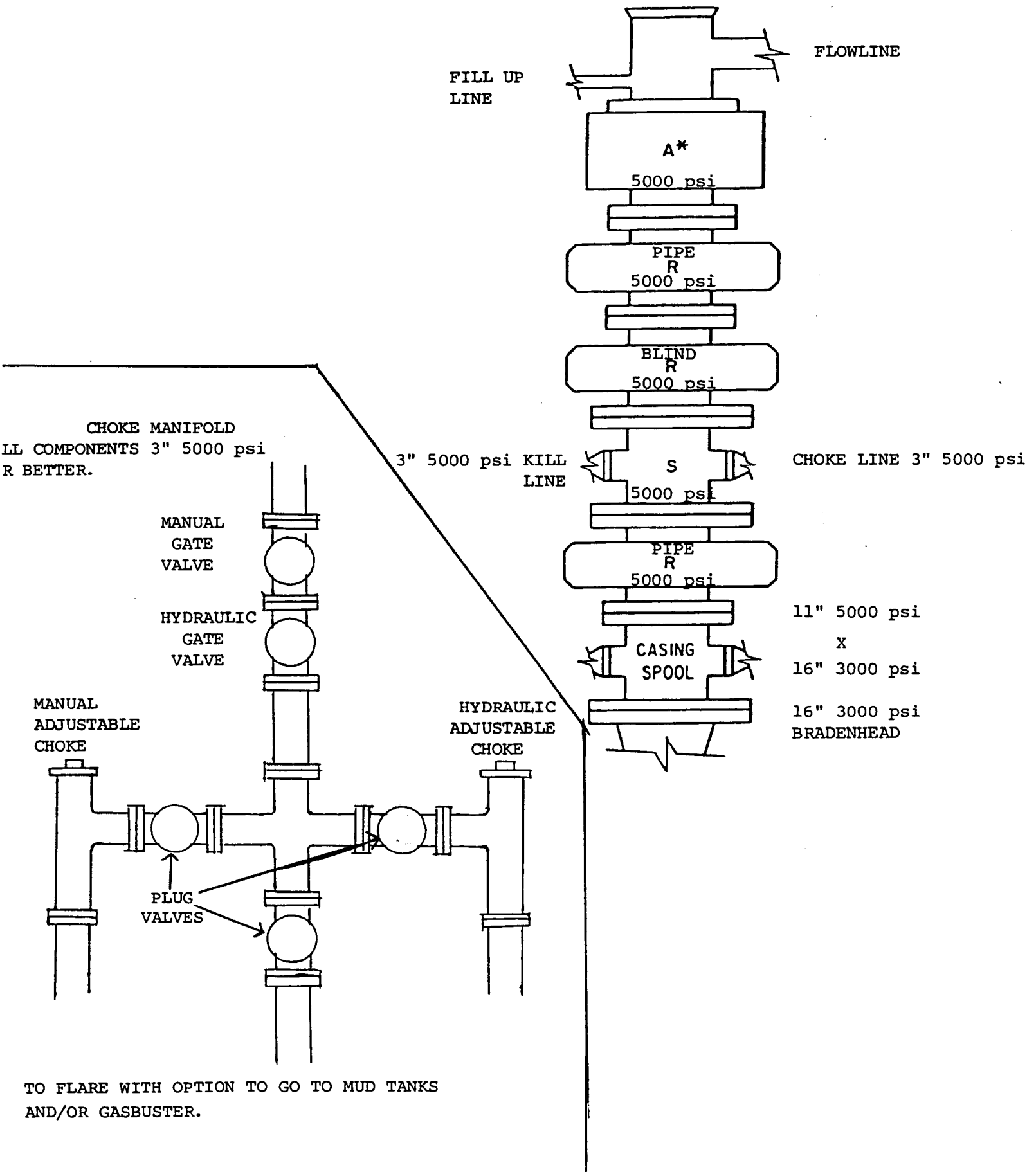
See also Exhibits #1(a) and #1(b)

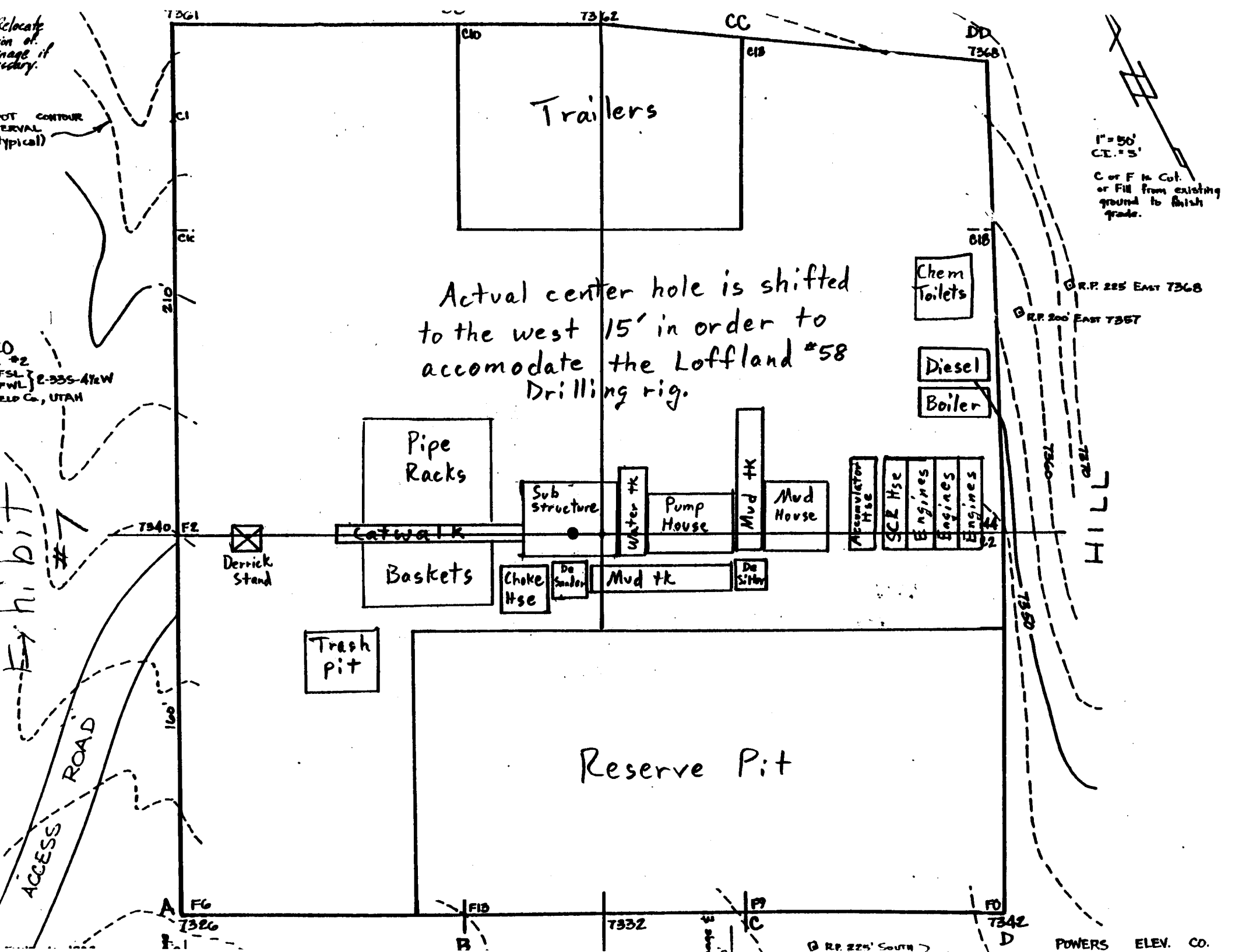
# Blowout Prevention Equipment Prior to Setting 10<sup>3</sup>/<sub>4</sub>" Casing



B. OUT PREVENTION EQUIPMENT DIAG I

FIGURE 6B





Relocate  
in of  
age of  
industry.

NOT CONTOUR  
EVAL  
(typical)

0  
#2  
FSL  
PWL  
E-335-412W  
ELD Co, UTAH

Exhibit  
#7  
ACCESS ROAD

Actual center hole is shifted  
to the west 15' in order to  
accomodate the Loffland #58  
Drilling rig.

1" = 50'  
C.T. = S'

C or F in Col.  
or Fill from existing  
ground to finish  
grade.

R.P. 225' EAST T368

R.P. 200' EAST T367

HILL

R.P. 225' SOUTH

POWERS ELEV. CO.

**\*\* FILE NOTATIONS \*\***

DATE: July 18, 1982  
OPERATOR: ARCO oil & Gas Company  
WELL NO: <sup>SWSW</sup> Unit #2

Location: Sec. 2 T. 33S R. 4 1/2 W. County: Mayfield

File Prepared: ☒

Entered on N.I.D: ☐

Card Indexed: ☐

Completion Sheet: ☐

API Number 43-017-115  
43-019-309

**CHECKED BY:**

Petroleum Engineer: Unit

Director: \_\_\_\_\_

Administrative Aide: Unit Well

**APPROVAL LETTER:**

Bond Required: ☒

Survey Plat Required: ☐

Order No. \_\_\_\_\_

O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site ☐

Lease Designation Fed

Plotted on Map ☐

Approval Letter Written ☒

Hot Line ☒

P.I. ☒



July 15, 1982

ARCO Oil & Gas Company  
Division of Atlantic Richfield Company  
P.O. Box 5540  
Denver, Colorado 80217

RE: Well No. Dixie Unit #2  
Sec. 2, T33S, R41W.  
Garfield County

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953 and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

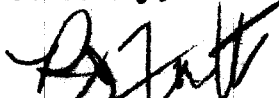
CLEON B. FEIGHT  
Office: 533-5771  
Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-017-30115.

Sincerely,



RONALD J. FIRTH  
CHIEF PETROLEUM ENGINEER

RJF:SC  
cc: Minerals Management Service  
Enclosure

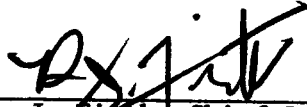
30 July 1982

MEMO TO FILE:

RE: Arco Oil & Gas Company  
Well No. Dixie Unit #2  
960' FSL - 1045' FWL  
Sec. 2, T. 33 S, R. 4½ W  
Garfield County, Utah

The referenced well was approved on July 15, 1982 for drilling as a unit well in accordance with Section 40-6-11 Utah Code Annotated 1953 and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure. However, the surface location of this well is located outside of the approved Dixie Unit area.

Mr. Bill Martens advised on 29 July 1982, that Minerals Management Service had approved the Dixie Unit #2 on a lease basis. However, he stated that Arco was in the process of expanding the unit area to include the location of the Dixie Unit #2 well. Therefore in view of this anticipated expansion of the unit area and the topographic constraints of the immediate area surrounding the proposed well site, approval of the Dixie Unit #2 well will not be modified.

  
\_\_\_\_\_  
R. J. Pirth, Chief Petroleum Engineer

R6 1/2 W

R 5 W

R 5

R 4 1/2 W

R 4 W

✓ Dixie Unit #2  
c2 T335, R4 1/2 W  
R3 W

COUNTY  
COUNTY

6	5	8	1
7	8	10	11
18	17	15	12
1A	20	22	24
30	29	31	26
31	32	34	35

DIXIE  
UNIT

TEXAS WTL  
13400'  
Mississippi  
Test

PARGUIER

NW EXPL  
12550  
Kaibab  
Test

CHAMPLIN  
13000'  
Test

6242

11221

400

4017

5066

5230

R 6 W

R 5 W

R 4 1/2 W

R 4 W

R 3 W

R 2 W

## RECOMMENDED STIPULATIONS

1. All necessary Road Use Permits (USFS) Right-of-Ways (BLM) and an agreement for upgrading of the County Road must be obtained prior to any construction activities
2. The location will be moved 15 feet west to accommodate the rig planned for drilling the well
3. The rerouted portions of the Garfield County road shall be blocked off from future use and reseeded with a seed mix prescribed by the BLM, KANAB, Utah in the fall of 1982
4. The <sup>county</sup> road reroute in NE/4 Section 7 T 33S, R 4 1/2 west will be coordinated with the BLM to avoid disturbances of a nearby archaeological site

5. Existing and new Access road improvements and construction shall follow the attached USFS guidelines, and Comments, with on the ground adjustments
6. A 6 feet diameter by 40 feet long culvert shall be installed in the Smith Canyon crossing of the new access road. The culvert will be removed during rehabilitation
7. Reseeding and fertilization of the Pad and new access road will follow a seed mixture prescribed by USFS
8. Gravel for road work shall be acquired from the BCM community pit one mile north of Pargutch.
9. The reserve will be lined to prevent the seepage/loss of toxic drilling fluids.
10. All non-flammable waste materials must be removed from the trash pit at the completion of drilling operations

11. Topsoil will be removed and stockpiled as specified in the APD to a depth recommended by USFS during pad construction
12. At abandonment, the USFS may desire to take over the water well drilled on location
13. The U.S. Forest Service, Panguitch, Utah will be notified 24 hrs prior to commencement of construction activities on Forest Lands.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ well ☒ gas ☐ well ☐ other

2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 960' FSL & 1045' FWL

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO: . SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) CHANGE IN SURFACE CASING DEPTH		

5. LEASE  
U-272

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME  
Dixie Unit

8. FARM OR LEASE NAME  
---

9. WELL NO.  
2

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4<sup>1</sup>/<sub>2</sub>W

12. COUNTY OR PARISH Garfield 13. STATE Utah

14. API NO.  
43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Surface casing is now anticipated to be set @ 1400' rather than 700' given in the APD & 10 Point Drilling Plan. This is because we have decided to try to get through the unconsolidated tertiary prior to setting pipe. Surface casing is 16". All other items remain as originally submitted.

**APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING**

DATE: 8-4-82

BY: [Signature]

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

18. I hereby certify that the foregoing is true and correct

SIGNED

W.A. Walther, Jr.

TITLE District Manager

DATE

8-4-82

W.A. Walther, Jr. of Production

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other ☐
2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 960' FSL & 1045' FWL \*\*  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐

SUBSEQUENT REPORT

- ☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐

**RECEIVED**  
AUG 09 1982

(NOTE: For results of multiple completion or zone change on Form 9-330.)

(other) CHANGE OF CENTER HOLE LOCATION

**DIVISION OF OIL, GAS & MINING**

5. LEASE  
U-2724
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---
7. UNIT AGREEMENT NAME  
Dixie Unit
8. FARM OR LEASE NAME  
---
9. WELL NO.  
2
10. FIELD OR WILDCAT NAME  
Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4 $\frac{1}{2}$ W
12. COUNTY OR PARISH  
Garfield
13. STATE  
Utah
14. API NO.  
43-017-30115
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

*ok*

Actual center hole location has been shifted 15' to the west, as stipulated in the approved Permit to Drill (MMS Stipulations).  
New location coordinates are: 960' FSL & 1045' FWL, Sec 2-33S-4 $\frac{1}{2}$ W.  
This was to accomdate the Loffland #58 drilling rig.

*[Signature]*

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE District Manager of Production DATE 8-4-82  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:



## TEN POINT DRILLING PLAN

Attach to APD Form 9-331-C  
ARCO Oil and Gas Company  
Dixie Unit #2  
960' FSL & 1060' FWL, Sec. 2-33S-4-1/2W  
Garfield County, Utah

1. Surface Geological Formation: Tertiary & Volcanics

2. Estimated Tops of Geological Markers:

Flagstaff	- ?	Carmel	- 5910'	Toroweap	- 10850'
Kaiparowitz	- 2385'	Navajo	- 7210'	Cedar Mesa	- 11470'
Tropic	- 4685'	Chinle	- 9410'	Elephant Canyon	- 12330'
Dakota	- 5580'	Shinarump	- 9630'	Calville	- 12950'
Windsor	- 5910'	Sinbad	- 10475'	Redwall	- 13300'
		Kaibab	- 10610'	Ouray	- 14400'

3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

Dakota	- 5580' (wtr)	Toroweap	- 10850' (oil)
Navajo	- 7210' (oil & gas)	Elephant Canyon	- 12330' (oil)
Shinarump	- 9630' (gas)	Calville	- 12950' (oil)
Sinbad	- 10475' (oil)	Redwall	- 13300' (oil)
Kaibab	- 10610' (oil)		

4. Proposed Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Section Length</u>	<u>Size OD</u>	<u>Weight Grade and Joint</u>	<u>New Used</u>
Surface	22	0- 700'	700'	16"	65#, H-40 BTC	New
Intermediate	14-3/4	0- 4500'	4500'	10-3/4"	51#, K-55 BTC	New
	14-3/4	4500- 7200'	2700'	10-3/4"	51#, S-80 STC	New
Production	9-1/2	0- 2000'	2000'	5-1/2"	17#, N-80 BTC	New
	9-1/2	2000-12000'	10000'	5-1/2"	17#, N-80 LTC	New
	9-1/2	12000-14450'	2450'	5-1/2"	17#, S-95 LTC	New
Contingency Liner	9-1/2	6950-11600'	4650'	7-5/8"	29.7#, S-95 LTC	New

4. Proposed Casing Program Cont'd:

Contingency	9-1/2	0- 5000'	5000'	7-5/8"	29.7#,N-80	New
Tiback					LTC	
	9-1/2	5000- 6950'	1950'	7-5/8"	29.7#,S-95	New
					LTC	

Cement                      Program

Surface	±1500 sx "H" cmt to surface with 100% excess.
Intermediate	Sufficient volume of Natlite 65-35 cmt calculated from caliper for 2000' column with 30% excess plus 100 sx "H" tail in.
Production	2-stage cmt job with Natlite 65-35 cmt, volumes calculated from caliper plus 25% excess. Intended to cover all permeable zones.
Liner	Sufficient volume of Natlite 65-35 cmt, calculated from caliper to circulate the liner with cmt with 20% excess plus 50 sx "H" tail in.

5. Minimum Specifications for Pressure Control:

Exhibit 6A is an schematic diagram of the blowout preventer equipment to be used after setting the 16" casing and prior to setting the 10-3/4" casing. The annular preventer will be hydraulically tested to 800 psi after nipping up and after any use under pressure. Annular preventer will be operationally checked each 24 hour period and such check will be noted on daily drilling reports.

Exhibit 6B is a schematic diagram of the blowout preventer equipment to be used after setting 10-3/4" casing. The BOPs will be hydraulically tested to 5000 psi after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

Accessories to BOP will include a kelly cock, floor safety valve and a drill string BOP with pressure rating equivalent to the BOP stack.

6. Type and Characteristic of Proposed Drilling Fluids:

<u>Depth</u>	<u>Type</u>	<u>Weight #/gal.</u>	<u>Visc. sec/qt.</u>	<u>Fluid Loss cc</u>
0- 700'	Fresh H <sub>2</sub> O Spud Mud	8.7-8.9	±40	No Control
700- 7200'	LSND (Note - if salt encountered, salt mud at 9.8 ppg may be used)	8.6-8.8	±35	10-15
7200- TD	Fresh wtr dispersed	8.6-8.8	±35	6-10

7. Auxiliary Equipment:

- A kelly cock will be kept in the string.
- A float will not be used at the bit.
- A mud logging unit with gas detecting device will be monitoring the system.
- A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. Testing, Logging and Coring Programs:

Anticipated Coring: Six 60' Diamond Cores - One immediately below unconformity between tertiary and cretaceous rocks. One in Sinbad if warranted, one in Kaibab, one in Elephant Canyon, Calville and Redwall.

Open Hole DST: Six DSTs - One in each core interval, or as needed.

Logging Program:	<u>Open Hole</u>	<u>Cased Hole</u>
DLL/MSFL	Surf csg to TD	CBL/VDL/GR ) Intermd
FDC/CNL/GR	Surf csg to TD	Csg Insp Log) & prod
BHC Sonic	Surf csg to TD	csg.
HID 4-arm	Surf csg to TD	
Acoustic wave form & Amplitude recording	Sinbad to TD	

9. Anticipated Abnormal Temperatures, Pressures or Hazards:

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Maximum bottom hole pressure expected is 6700.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of Operations:

The anticipated starting date is set for July 26, 1982, with an operating agreement obligation deadline of July 28, 1982. Operations should be completed within 150 days after spudding the well.

13-POINT PLAN SURFACE USE PLAN

Attached to Form 9-331C  
ARCO Oil and Gas Company  
Dixie Unit #2  
960' FSL & 1060' FWL  
Sec. 2-33S-4-1/2W  
Garfield Co., Utah

1. Existing Roads:

- A. The proposed location is staked as shown in the Certified Location Plat, Exhibit 1. The corners of the drilling pad area are staked and south & east directional stakes also placed.
- B. The location is reached as shown in Exhibit 2. From Panguitch proceed north on Hwy 89 to milemark 140 ( $\pm 7$  miles) and turn right on gravel road. Proceed down gravel road (Sanford Canyon Rd.) 4.1 miles and take the left fork (Smith Canyon Rd.). Proceed along Smith Canyon Rd. past the Dixie National Forest boundary (2.3 mi) to the marked location with short access drive ( $\pm 1.3$  mi beyond Forest boundary).
- C. On Exhibit 2 the existing roads shown in green are gravel roads and the existing roads shown in red are dirt roads. These roads are Garfield County roads and Dixie National Forest roads and they are maintained by those two agencies respectively.
- D. This is an exploration well and all roads are shown on Exhibit 2.
- E. The existing county and national forest roads range from very good to adequate condition and will be maintained in an improved condition in cooperation with the Garfield County Road Supervisor and the Dixie National Forest District Ranger out of Panguitch, Utah.
- F.
  - 1) From U.S. 89 to the first cattleguard along Sanford Creek Rd. a 25 mph speedlimit will be posted and implemented for vehicles associated with our operations. This is for dust control. If further dust control becomes necessary, a watering schedule will be instigated.
  - 2) The load bearing capabilities of the Sevier River Bridge on Sanford Creek Rd are being invetigated and the bridge will be modified, if deemed necessary, in conjunction with the Garfield County Commissioner, Geroge Middleton.
  - 3) Replacement of a 15' arched pipe located between the first and second cattleguard on Sanford Creek Rd. will be investigated and worked in conjunction with the Garfield County Commissioner, George Middleton.

- 4) From the second cattleguard in Sanford Creek Rd. to the location along Smith Canyon Road, 6" of pit gravel (max 2" aggregate) will be placed on the road surface in all areas where is deemed necessary by the County Commissioner or the District Forest Ranger. The road is to be widened to a maximum of 18' and ditched in all sections except those selected to be outsloped by the County Commissioner or District Forest Ranger. The ditches along Sanford Creek Rd. will be recut, where it is necessary, by the County.
- 5) Replacement of an 18" pipe near the SE corner of Mr. Hughes property will be investigated and worked in conjunction with the Garfield County Commissioner.
- 6) Two minor road relocations, as shown on Exhibit 2, along Smith Canyon Rd. may be made at the request of the District Forest Ranger. If performed, these relocations will be constructed in conjunction with the County Commissioner and the Bureau of Land Management. An archeological inspection of these location areas will be made if required by the Bureau of Land Management, and reseeded of the present road locations will be performed at the time the wellsite pad is reseeded.

## 2. Planned Access Roads:

A map showing the necessary access road to be constructed is shown in yellow on Figure 2. Such road is to be  $\pm 500'$  in length, merely a driveway from the existing dirt road (Smith Canyon Rd.) to the location pad. This road is to be constructed for the following:

### A. Drilling Operations

- 1) The maximum width will be 18'.
- 2) The grade will be 8%.
- 3) No turnouts are planned.
- 4) The existing drainage system for the valley is to be disturbed as little as possible. The road will be constructed over the southern drainage channel using a culvert (type of culvert to be decided by Dixie National Forest recommendation, and culvert to be removed when operation is completed). The road itself is to be constructed with compacted fill to be slightly elevated with a slight incline for drainage.
- 5) A culvert is to be used to cross the southern drainage channel.
- 6) Surfacing Material (gravel) will be used on constructed access road and pad location if cut material is not adequate.

- 7) No gates, fence cuts, or cattleguards will be installed.
- 8) The new access road to be constructed was centerline flagged during staking. This road is on Dixie National Forest land.

B. Production

- 1) If production is obtained, new road will be graded and surfaced and drainage constructed as required.

3. Location of Existing Wells:

There are no existing wells within a 3 mile radius of this intended exploratory well (See Exhibit 3) - as discussed at the on-site meeting.

- 1) There are no water wells within a 3 mile radius.
- 2) There are no abandoned wells within 3 miles.
- 3) There are no temporarily abandoned wells.
- 4) There are no disposal wells.
- 5) There are no wells presently being drilled.
- 6) There are no producing wells.
- 7) There are no shut in wells.
- 8) There are no injection wells.
- 9) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities:

A. Within a one-mile radius of location the following existing facilities are owned or controlled by ARCO Oil and Gas Company or other lessee/operator:

- (1) Tank Batteries: None
- (2) Production Facilities: None
- (3) Oil Gathering Lines: None
- (4) Gas Gathering Lines: None
- (5) Injection Lines: None
- (6) Disposal Lines: None

- B. If production is found, plans for required production facilities will be submitted under Sundry Notice.
- C. Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with Dixie National Forest stipulations. Location pad and access drive off Smith Canyon Rd. to be ready for reseeding by October 1983, and to be reseeded in October 1983.

5. Location and Type of Water Supply:

- A. At this time it is intended to obtain water from any of three sources:
  - 1) A water well drilled on or immediately adjacent to location. Appropriate permits will be applied for. The water well will be given over to the Dixie National Forest upon completion of our operations in this area with the following stipulations:
    - oil & gas
    - a) If this<sup>V</sup> well is productive or if at any future time we have operations in this area, we will have the preferential right of use of this water well.
    - b) The State of Utah allows for the well to be taken over by the Dixie National Forest.
    - c) The Dixie National Forest agrees to operate and/or maintain the water well in good condition, or that they require our consent prior to plugging or abandoning the water well.
  - 2) Water purchased from Mr. Pfeiler or Mr. Hughes originating from their rites to Sanford Creek.
  - 3) Water drawn from the Sevier River with the consent of Mr. Procter representing the down-river water users.

6. Construction Materials:

- A. No construction materials are needed for the drilling site itself with the exception of possibly some gravel for dust control. Gravel will be required on sections of the access road for dust control and to avoid ruts. The gravel will be obtained either from the pit on the north side of Panguitch (access & use granted by the County Commissioner through his open-use permit) or from quaternary alluvium deposits where Smith Canyon Road exists the canyon on the west (through permission of the BLM).
- B. All gravel removed from Federal Lands will be with the written permission of the BLM.



- C. If the well is productive and additional construction materials are required, new use permits will be obtained prior to obtaining gravel from the afore mentioned sources.

7. Handling of Waste Materials and Disposal:

- A. Drill cuttings will be buried in the reserve pit.
- B. Drilling fluids will be handled in the reserve pit.
- C. Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and removed. If well is productive, produced water will be disposed of on-site for 30 days only, or 90 days with permission of Dixie National Forest. After that time application will be made for approval of permanent disposal methods in compliance with NTL-2b.
- D. Chemical toilet facilities will be provided for human waste.
- E. Garbage and non-flammable and flammable waste, salts, and other chemicals produced during drilling or testing will be handled in trash pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit. The trash pit will be totally enclosed with small mesh wire to prevent wind scattering trash before being removed. Reserve pit will be fenced on three sides during drilling and the fourth side fenced upon removal of the rig.
- F. After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. All dangerous open pits will be fenced during drilling and kept closed until such time as the pit is leveled. Rehabilitation and reseedling of the pits and location pad will be complete by the end of October 1983.

8. Ancillary Facilities:

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout:

- (1) EXHIBIT "5" is the Drill Pad Layout as staked, with elevations. Cuts and fill have been drafted to visualize the planned cut across the location spot and the deepest part of the pad. Topsoil will be stockpiled per Dixie National Forest at the northeast and southeast corners of the location. A 3' deep drainage channel will be cut above the north side of the pad to divert all drainage to the west side drainage channel as per Dixie National Forest, District Ranger. Some top soil may be used as dike materail for this north side channel.

It will be necessary to construct the pad into the drainage channel on the west side (particularly at the north-south centerline) in order to have sufficient length to accomodate the intended drilling rig (Loffland #58) to be used on this well. We would cut additional drainage channel just off the edge of the west side of the pad in order to maintain sufficient flow area to accomodate drainage in times of heavy rainfall. This has been discussed with Clair Baldwin, the District Forest Ranger. In additiion, the restoration work, after drilling operations are complete, will restore this drainage channel back to its original state as per Mr. Baldwin's specifications.

- (2) EXHIBIT "7" is a plan diagram of the proposed rig and equipment, reserve pit, trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be 4 or less trailers on site.
- (3) EXHIBIT "7" shows rig orientation and access road.
- (4) The reserve pits will not be lined unless deemed necessary during construction.

10. Plans for Restoration:

- (1) If well is abandoned, site will be restored to original condition as nearly as possible. Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately to an approved sanitary land fill after drilling is completed. If production is obtained, the unused area will be restored as soon as possible. All intended restoration and reseedling will be completed by the end of October 1983.
- (2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the Dixie National Forest. Revegetation is recommended for temporary road area, as well as around drill pad.
- (3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from entering; and the fencing will be maintained until leveling and cleanup are accomplished.
- (4) If any oil is on the pits and is not immediately removed or burned after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.
- (5) The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation will be done as recommended by surface management agency.

11. Other Information:

- (1) The soil is a sandy-silty alkali loam on top of quarternary alluvium. Location is staked in a small drainage valley in the Smith Canyon. The area is covered with Sagebrush, Red Cedar, Indian Rice Grass, Ponderosa Pine, Cheat Grass, Cactus and a few other miscellaneous flora. The Fauna of the area include Muledeer, Elk, Jack Rabbit, Mountain Lion, Cottontail Rabbit, Blue Grouse, Rattlesnake and Red Squirrel. The topography is moderately inclined at the pad site and rugged beyond the site boundaries.
- (2) There is no primary surface use as there is no grazing in the immediate vicinity of the pad site. The surface is owned by the U. S. Government and managed by the Dixie National Forest. Ownership of access roads is shown on Exhibit 2.
- (3) There is no live water in the immediate vicinity. The closest occupied dwellings are between the bridge and the 1st cattleguard on Sanford Creek Rd. (approximately 7 miles from location).
- (4) There were no archaeological, historical, or cultural artifacts observed during staking of this location. An archaeological survey was conducted by a qualified archaeologist and a report has been submitted to the Dixie National Forest, District Ranger.
- (5) There are no reported restrictions noted on the oil and gas lease. However, our operating agreement says that this well, the second obligation well, must be spudded by midnight, July 28, 1982, unless an extension is granted.
- (6) Drilling is planned for on/or about July 26, 1982. It is anticipated that the final casing point will be reached 150 days after commencement of drilling.

12. Lessee's or Operator's Representative:

W. A. Walther, Jr.  
ARCO Oil and Gas Company  
P. O. Box 5540  
Denver, Colorado 80217  
Bus. Tele: (303) 575-7031  
Res. Tele: (303) 575-7153

J. M. McCarthy  
ARCO Oil and Gas Company  
P. O. Box 5540  
Denver, Colorado 80217  
Bus. Tele: (303) 575-7127  
Res. Tele: (303) 575-7314

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by ARCO Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

July 2, 1982  
Date

W. A. Walther, Jr.  
W. A. Walther, Jr.  
District Manager of Production  
ARCO Oil and Gas Company

ps

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ well ☐ gas well ☐ other

2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO: . SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) N.O. SPUD		

5. LEASE  
U-2 2

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME  
Dixie Unit

8. FARM OR LEASE NAME  
---

9. WELL NO.  
2

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4W

12. COUNTY OR PARISH Garfield 13. STATE Utah

14. API NO.  
43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

MI & RU Loffland Rig #58. SPUD well @ 6:30 am 8-12-82; 36" pipe set @ 107'. Tag cement @ 102'. Opened hole to 150'. RU & ran 4 jts 26", 102.58# casing and stopped @ 135'. Cemented with 350 sx Class "B" cement with 2% Class B slurry. J C 8-13-82. Cement circled to within 2' of surface. RU to re-cement. Mix 200 sx Class "B" cement with 2% CaCl<sub>2</sub> and pumped down dp with hydril closed. Displaced with 31 BW. Mix 200 sx Class "B" cement with 2% CaCl<sub>2</sub> and pumped down dp landed @ 110'. Displaced with 1 bbl water - hydril open. Water and mud came up and filled cellar. Drilled out cement. Tested hydril to 2000 psi - held OK. Drilling ahead.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE District Manager DATE 8-24-82  
W. A. Walther, Jr. of Production  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other 303-575-7000

2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 960' FSL & 1045' FWL

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☐

ABANDON\* ☐

(other) N.O. SPUD

SUBS

RECEIVED

AUG 26 1982

DIVISION OF  
OIL, GAS & MINING

5. LEASE

U-27

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Dixie Unit

8. FARM OR LEASE NAME

9. WELL NO.

2

10. FIELD OR WILDCAT NAME

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

2-33S-4W

12. COUNTY OR PARISH

Garfield

13. STATE

Utah

14. API NO.

43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)

7343' GR

(NOTE: Report results of mud completion or zone change on Form 9-330.)

not conf as per conversation  
9-1-82

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

MI & RU Loffland Rig #58. SPUD well @ 6:30 am 8-12-82; 36" pipe set @ 107'. Tag cement @ 102'. Opened hole to 150'. RU & ran 4 jts 26", 102.58# casing and stopped @ 135'. Cemented with 350 sx Class "B" cement with 2% Class B slurry. J C 8-13-82. Cement circled to within 2' of surface. RU to re-cement. Mix 200 sx Class "B" cement with 2% CaCl<sub>2</sub> and pumped down dp with hydril closed. Displaced with 31 BW. Mix 200 sx Class "B" cement with 2% CaCl<sub>2</sub> and pumped down dp landed @ 110'. Displaced with 1 bbl water - hydril open. Water and mud came up and filled cellar. Drilled out cement. Tested hydril to 2000 psi - held OK. Drilling ahead.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE District Manager DATE 8-24-82  
W. A. Walther, Jr. of Production

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other ☐
2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO: . SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) CHANGE IN SURFACE CASING DEPTH		

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

It is now anticipated that surface casing will be set @ 2500' (to be under the volcanics) instead of 1400' as requested on Sundry Notice approved by Mr. Martens on August 17, 1982.

Our intent has been to set the 16" surface casing below the surface volcanics, a zone plagued with lost circulation and potential pipe sticking. Contrary to our geologists predictions we are still in these volcanics at 2330' and no longer have a predicted base. We are now choosing to set surface casing for protection against shallow gas or water flows.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE Acting District Manager DATE 8-31-82  
W. A. Walther, Jr. (This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

5. LEASE  
U-27242

6. IF \_\_\_\_\_ IAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Dixie Unit

8. FARM OR LEASE NAME  
---

9. WELL NO.  
2

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4 $\frac{1}{2}$ W

12. COUNTY OR PARISH  
Garfield

13. STATE  
Utah

14. API NO.  
43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

9/7/82  
[Signature]

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☒ gas ☐  
well well other

2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) <u>N.O. SETTING SURFACE CASING</u>	

5. LEASE  
U-27242

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME  
Dixie Unit

8. FARM OR LEASE NAME  
---

9. WELL NO.  
2

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4 $\frac{1}{2}$ W

12. COUNTY OR PARISH  
Garfield

13. STATE  
Utah

14. API NO.  
43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled to 2510' and opened 14-3/4" hole to 22" hole. RU & ran 35 jts 16", 84#, K-55, BTC, Rge 3 casing (1469.84'); ran 24 jts 16", 65#, H-40, BTC, Rge 3 casing (946.18'); ran 2 jts 16", 84#, K-55, BTC casing @ top (87.56'); float collar and guide shoe (3.35') total string 2503.58' and landed @ 2503'. Pumped 30 bbls water flush ahead, lead in with 2000 sx HOWCO lite, 12.5# gilsonite & 3% CaCl<sub>2</sub>. Tail in with 600 sx Class "H" with 2% CaCl<sub>2</sub>, 2 bbls water. Full returns throughout cementing. Pressure tested all rams and valves to 2000 psi - held OK.

Drilling ahead.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W.A. Walther, Jr. TITLE Acting District Manager DATE 9-24-82  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

RECEIVED  
SEP 28 1982

\*See Instructions on Reverse Side

DIVISION OF  
OIL, GAS & MINING



ARCO Oil and Gas Company  
Rocky Mountain District  
717-17th Street  
Mailing address: P.O. Box 5540  
Denver, Colorado 80217  
Telephone 303 575 7000



October 29, 1982

Minerals Management Service  
Attn: George Diwachak  
Suite 2000  
1745 West, 1700 South  
Salt Lake City, UT 84104

Dixie National Forest  
Attn: Clair Baldwin  
225 East, Center  
Panguitch, UT 84759

**RECEIVED**

NOV 03 1982

**DIVISION OF  
OIL, GAS & MINING**

Gentlemen:

RE: Sundry Notice to Construct Separate Storage  
Pit Near Dixie Unit #2

As per your discussions with Mr. Peter Tibbitts, attached is a Sundry Notice requesting approval to construct a separate storage pit near the Dixie Unit #2 well location. The pit will be used for storage of excess salt contaminated drilling fluids.

The need for this pit is 3-fold:

1. The fluid level in our existing reserve pit is high and we are running out of space for additional fluids to go into the reserve pit.
2. We must lower the fluid level in the reserve pit in order to most effectively repair a tear in the liner.
3. By removing the salt water from the reserve pit now it allows us the capability of recovering fresh water from the reserve pit in the future if the need arises to conserve water consumption, or if the pit level gets high again.

The Exhibit #1 referred to in the Sundry Notice and attachment will

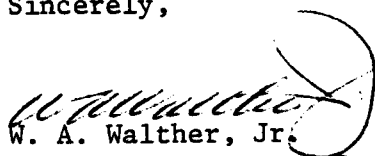
Minerals Management Service  
Dixie National Forest  
October 29, 1982  
Page Two

be sent to you directly from Panguitch under separate cover.  
Archeological clearance will be obtained if required by the Dixie  
National Forest and if not already covered within the wellsite  
archeological clearance.

If you have any queries please contact Mr. Tibbitts at (303) 293-7064.

Thank you for your assistance.

Sincerely,

  
W. A. Walther, Jr.  
District Manager of Production

WAW/PT/drm

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.

1. oil ☒ gas ☐ other ☐  
well well
2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17  
below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,  
REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>
(other) SEE BELOW	<input type="checkbox"/>

SUBSEQUENT REPORT OF

□ □ □ □ □ □

DIVISION OF  
OIL, GAS & MINING

5. LEAVE  
U-27242

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Dixie Unit

8. FARM OR LEASE NAME

9. WELL NO.  
2

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
2-33S-4<sup>1</sup>/<sub>2</sub>W

12. COUNTY OR PARISH	13. STATE
Garfield	Utah

14. API NO.  
43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343'-CR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

ARCO Oil and Gas Company requests approval to dig a separate storage pit for excess, salt contaminated drilling fluids. The pit is to be located west of our pad area in Section 2-T33S-R4-W, Garfield County, Utah (exact location to be specified on Exhibit #1 being sent under separate cover). The pit dimensions, cut and fill, etc. will be specified on Exhibit #1. Attached is the Surface Use and Rehabilitation Plan for this proposed pit.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE Acting District Manager DATE 10-28-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL IF ANY: \_\_\_\_\_

## SURFACE USE AND REHABILITATION PLAN

1. Topsoil will be removed to a depth specified by USFS and stockpiled as shown on Exhibit #1 (under separate cover).
2. Cut material will be used for fill on the downslope side of the pit, with some additional cut material possibly used for additional diking on all sides of the pit. Excess cut material will be stockpiled as shown on Exhibit #1.
3. Pit location, dimensions, cuts and fill, etc., are shown on Exhibit #1.
4. The pit will be lined as per Dixie National Forest stipulations for containment of water base muds with dissolved salts. In addition, the pit will be fenced in on all four (4) sides when its construction is completed.
5. It is not intended to construct a surface access road. Rather, a vehicle path or trail will be established in one place, closest to the existing pad or access route. This trail will be established by the operation of vehicles and construction equipment getting to and from the pit during its construction. Any drainage crossings will be low water crossings.

We do not expect any use of this access trail after the construction of the pit and pump setup is complete until it is time for rehabilitation. Any use that does occur will be kept to a bare minimum.

6. All fluids placed into the pit are to be pumped to the pit from our existing pad location or from the existing access road. Fluids will not be hauled to the pit by trucks.
7. We anticipate storing 30,000 to 40,000 barrels of drilling fluids in this pit.
8. Construction of the pit is anticipated to commence on or near October 31, 1982 providing this Sundry is approved.
9. Rehabilitation of this pit will take place at the time the well pad and pit are rehabilitated.
10. For rehabilitation, fluids remaining in the pit will be pumped out and hauled away for disposal if required by the Dixie National Forest.
11. Rehabilitation will be performed in the same manner as that used with the primary reserve pit on the pad location. The pit will be recontoured to the original surface contours. Reseeding of the pit area and the access trail will be performed at the same time the main location is reseeded, and will be performed using the same seed formula - specified by the Dixie National Forest.



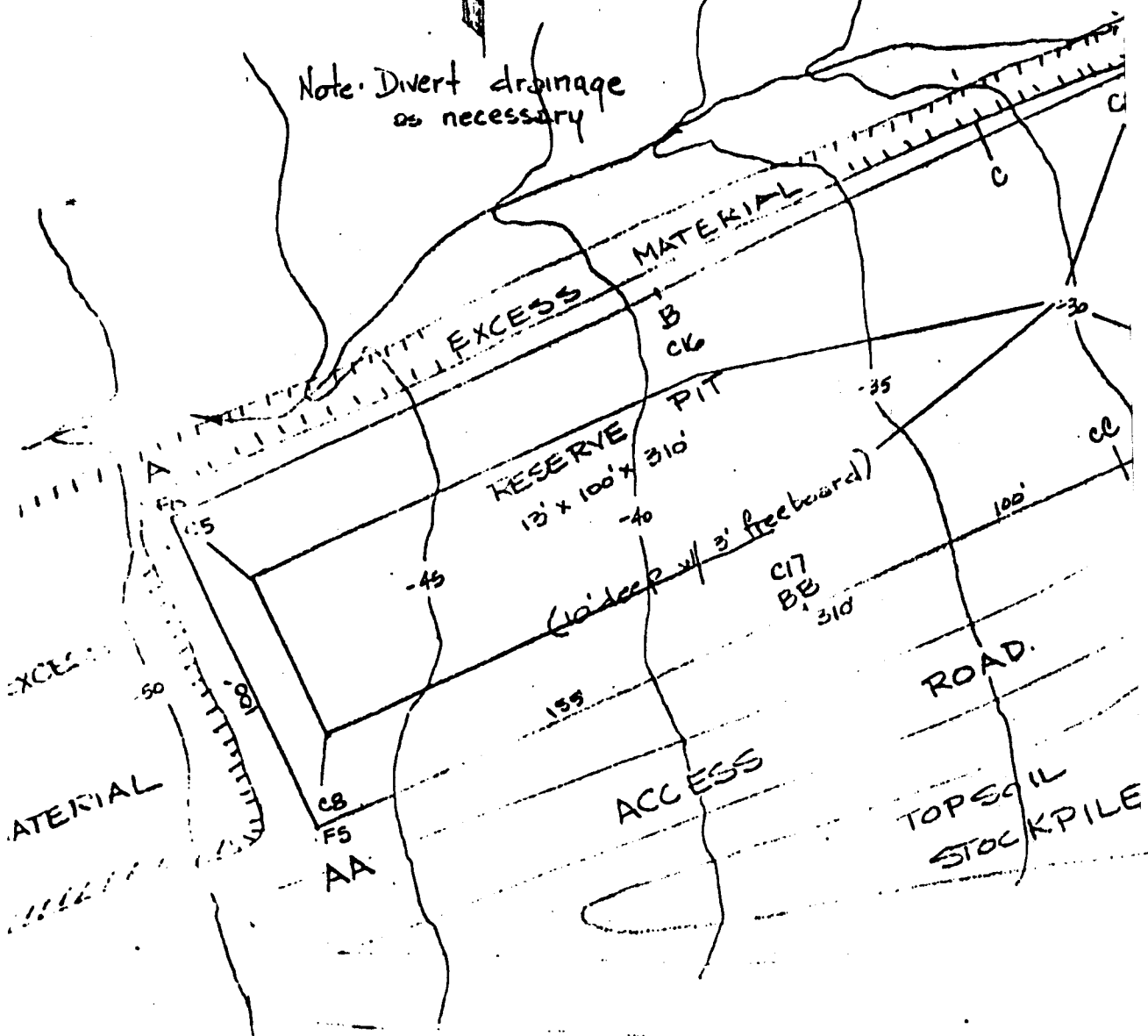
EXHIBIT "1"  
**RECEIVED**

NOV 04 1982

DIVISION OF  
 OIL, GAS & MINING

1"=50'  
 C.T. = 5'  
 (relative to  
 as built pad level)

Note: Divert drainage  
 as necessary

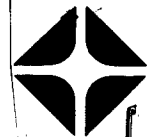


Storage pit

Hayfield Co., Utah

See 2-338-4 1/2 W  
 on upper sheet &  
 survey dated 10-28-82  
 to be attached to

Big 475'



ARCO Oil and Gas Company  
Post Office Box 5540  
Denver, Colorado 80217

# EXHIBIT "1"

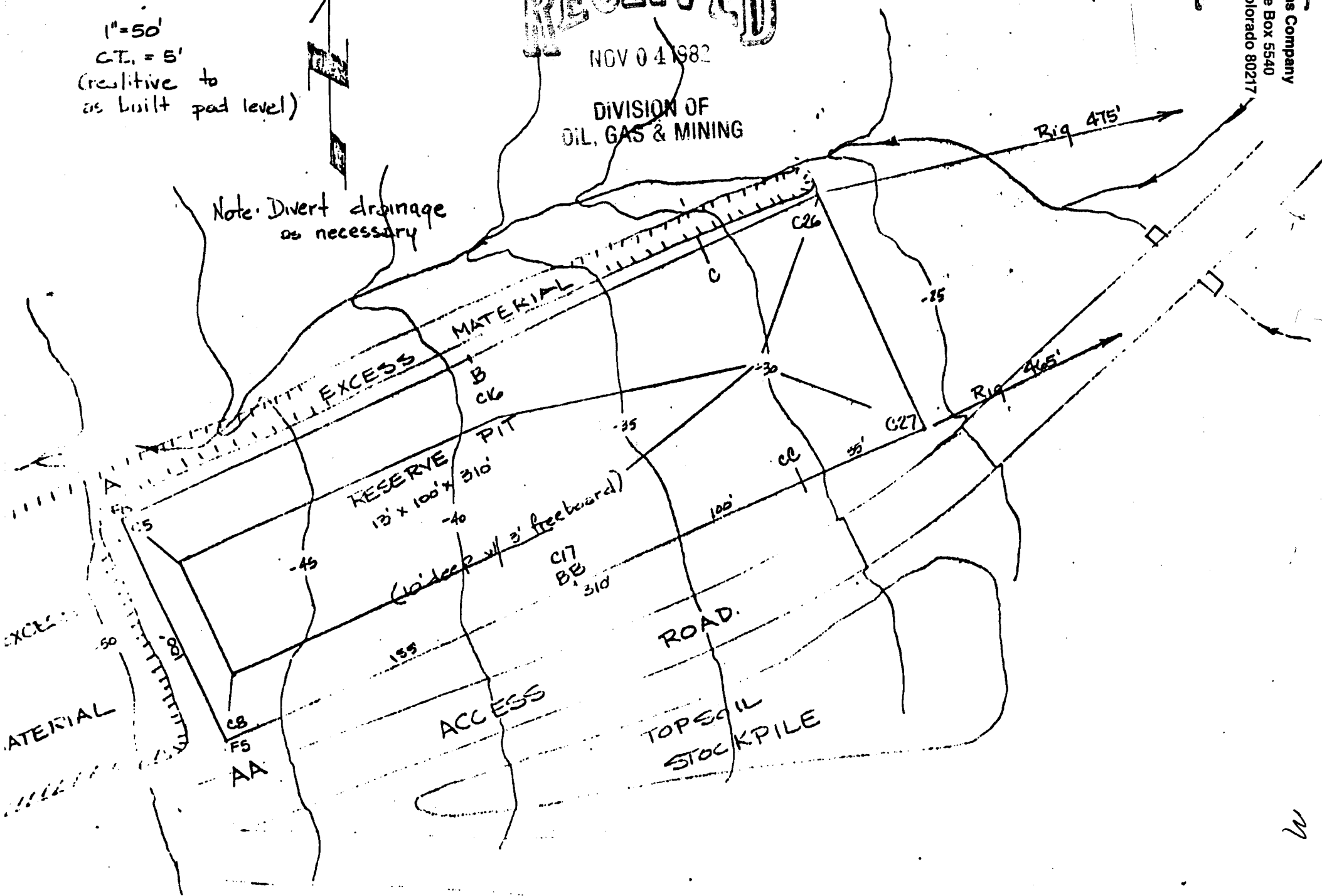
## RECEIVED

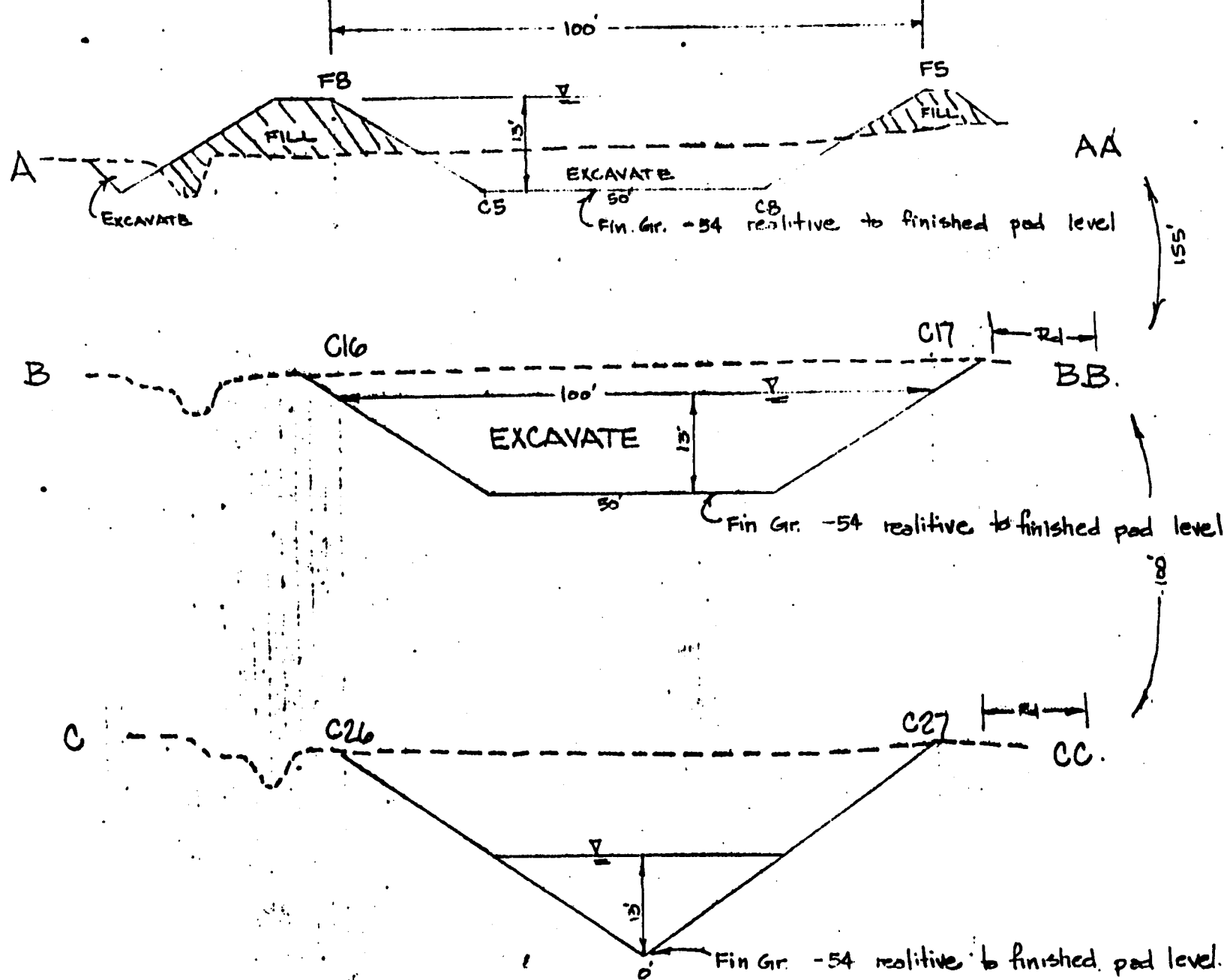
NOV 04 1982

DIVISION OF  
OIL, GAS & MINING

1"=50'  
C.T. = 5'  
(relative to  
as built pad level)

Note: Divert drainage  
as necessary





Scales: 1" = 25' Hor.  
1" = 20' Vert.

--- Existing ground  
— Proposed grade.

Cor F is Cut or Fill  
from existing ground  
to finish grade.

All slopes @ 2:1.

Volume of pit w/ 13' depth =  $\pm 216,000 \text{ ft}^3$

$\pm 11,300 \text{ yd}^3$  Cut  
 $\pm 1,100 \text{ yd}^3$  Fill

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different formation. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other ☐2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR

P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 960' FSL &amp; 1045' FWL

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐CHANGE ZONES ☐ABANDON\* ☐

(other) N.O. SETTING PRODUCTION CASING

SUBSEQUENT REPORT OF:

☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐  
☐

RECEIVED

NOV 17 1982

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

DIVISION OF  
OIL, GAS & MINING

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled to 7767'. Logged. RU & ran 174 jts 10-3/4" casing and 1.90" parasite string as follows: 11 jts 55.5#, L-80, ST&C with FS on bottom and convention at fill float collar 2nd jt up with connections locked using weld and 6 centralizers; 11 jts 60.7#, S-95, ST&C, cross-over; 12 jts 60.7#, S-95, BTC, cross-over; 83 jts 55.5#, L-80, ST&C; 7 jts 51.0#, L-80, ST&C, DV collar; 50 jts 51.0#, L-80, ST&C. Placed metal petal basket each side of DV collar and 6 centralizers. Protective guide and parasite elbow welded onto 131st jt. Welded two straps per jt on jts 131 thru 174 to hold 1.90" parasite string to casing. Ran total of 187 jts 51.0#, 55.5# & 60.7#, L-80 & S-95 casing and landed @ 7742'. Circled hole. Cemented 1st stage as follows: 1200 sx 50/50 poz mix with 4% total gel, 18% salt, 3/4% CFR-2 + 1/4#/sx flocele (yield per sx 1.49 and wt of slurry 14.15 ppg). Tailed with 1080 sx Class "H", (OVER)

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED

W. A. Walther, Jr.

TITLE

Acting District  
Manager

DATE

11-15-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



18% salt, 3/4% CFR-2 & 1/4#/sx flocele (yield per sx 1.20 & wt of slurry 16.0 ppg). Cemented mixed @ 8 BPM with good returns. Floats held. Pumped through parasite string. Dropped DV opening bomb and opened DV. Cemented through DV as follows: 1677 sx 50/50 poz mix with 2% gel and 1/4#?sx flocele (yield per sx 1.26 & wt of slurry 14.15 ppg). Cement circl'd to surface. Displaced @ 10 BPM with PD @ 8:30 pm 10-30-82. Tested BOP to 5000 psi - held OK. Drilling ahead.

Phone  
713-780-9132

# LYNES, INC.

Box 12486  
Houston, TX 77017

Loffland Brothers  
Contractor Company  
Rig No. 58  
Spot SW-SW  
Sec. 2  
Twp. 33S  
Rng. 4 1/2 W  
Field Wildcat  
County Garfield  
State Utah  
Elevation 7343' GL  
Formation --

Top Choke 1/4"  
Bottom Choke 3/4"  
Size Hole 14 3/4"  
Size Rat Hole --  
Size & Wt. D. P. 4 1/2" 19.50  
Size Wt. Pipe --  
I. D. of D. C. 2 1/2"  
Length of D. C. 248'  
Total Depth 5648'  
Interval Tested 5595'-5648'  
Type of Test Bottom Hole  
Inflate

Flow No. 1 -- Min.  
Shut-in No. 1 -- Min.  
Flow No. 2 -- Min.  
Shut-in No. 2 -- Min.  
Flow No. 3 -- Min.  
Shut-in No. 3 -- Min.

Bottom Hole Temp. 132° F  
Mud Weight 9.0  
Gravity --  
Viscosity 55

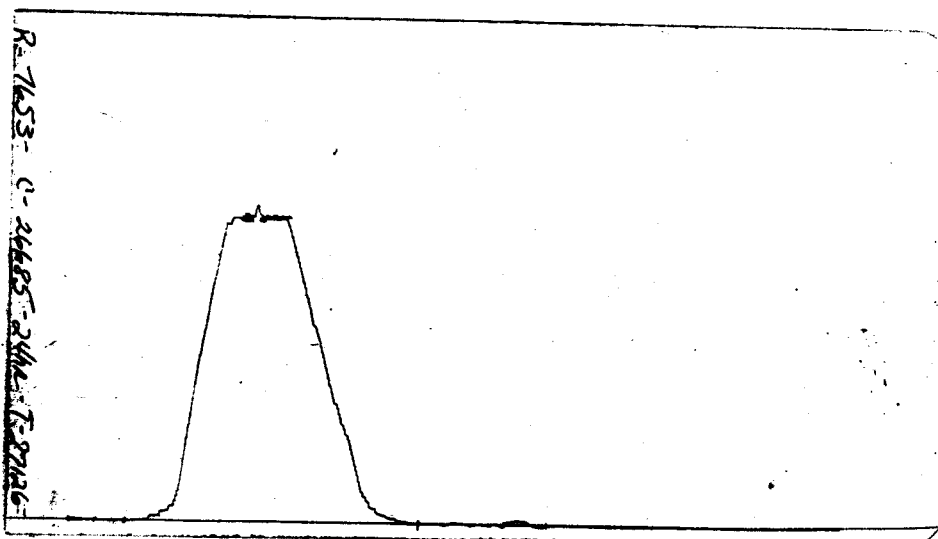
Tool opened @ --

## Outside Recorder

PRD Make Kuster K-3  
No. 7653 Cap. 4000 @ 5601'

	Press	Corrected
Initial Hydrostatic	A	--
Final Hydrostatic	K	--
Initial Flow	B	--
Final Initial Flow	C	--
Initial Shut-in	D	--
Second Initial Flow	E	--
Second Final Flow	F	--
Second Shut-in	G	--
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist. Rock Springs, WY  
Our Tester: Stormy Hayes  
Witnessed By: E. L. Garrison



Did Well Flow - Gas No Oil No Water No  
RECOVERY IN PIPE: 1800' Drilling mud

MISRUN: Lost packer seat.

Operator Arco Oil & Gas Company  
P. O. Box 5540  
Address Denver, Colorado 80217

Well Name and No. Dixie Unit #2  
Ticket No. 27126

Date 10-9-82

DST No. 1  
No. Final Copies 5

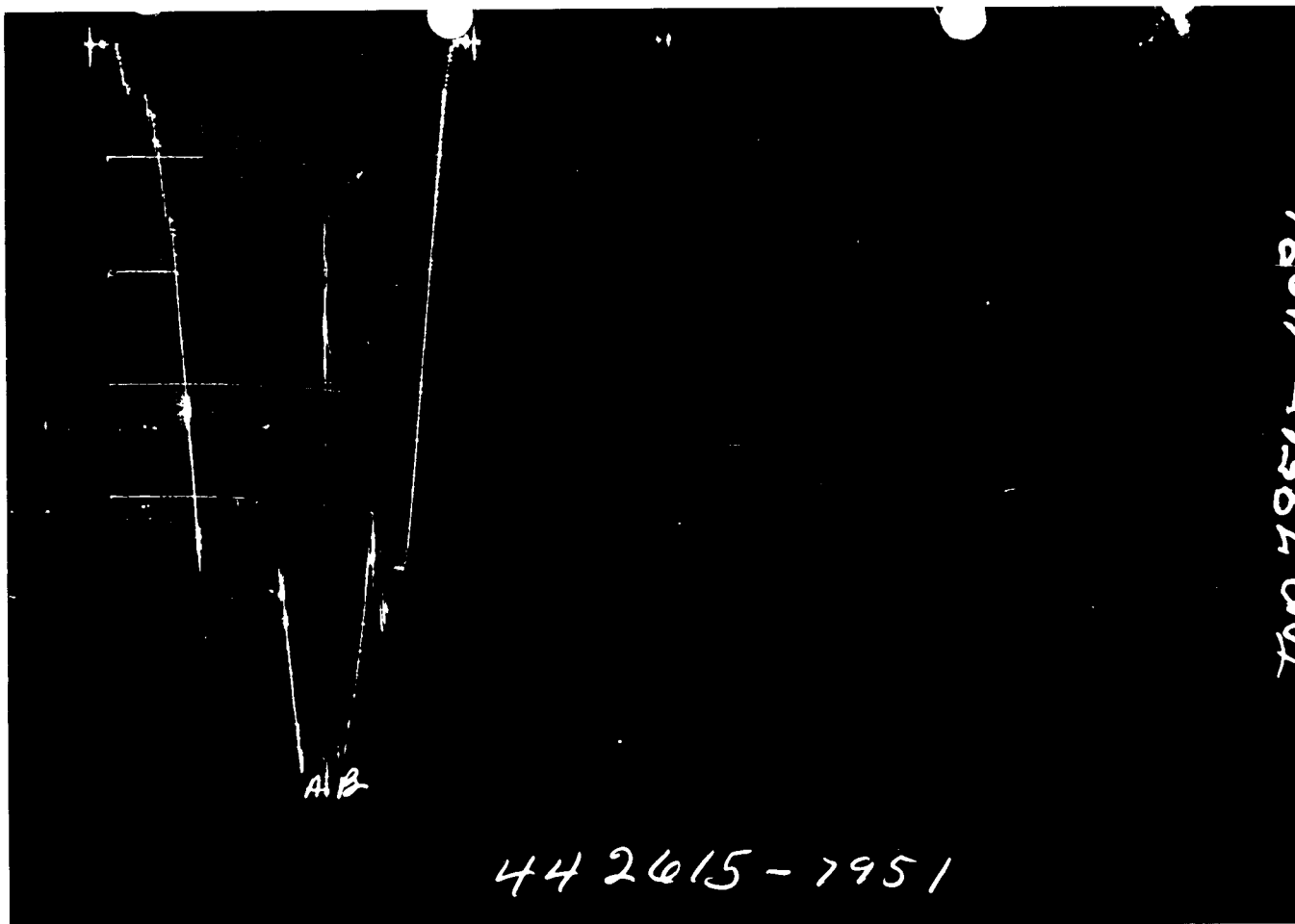
642

DIXIE UNIT	2	23	13889.1 - 13940.1	ARCO PETROLEUM COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TWP. - RANG.	2 - 33S - 4 1/2 WEST	FIELD AREA	WILDCAT	COUNTY GARFIELD STATE UTAH DR/PR



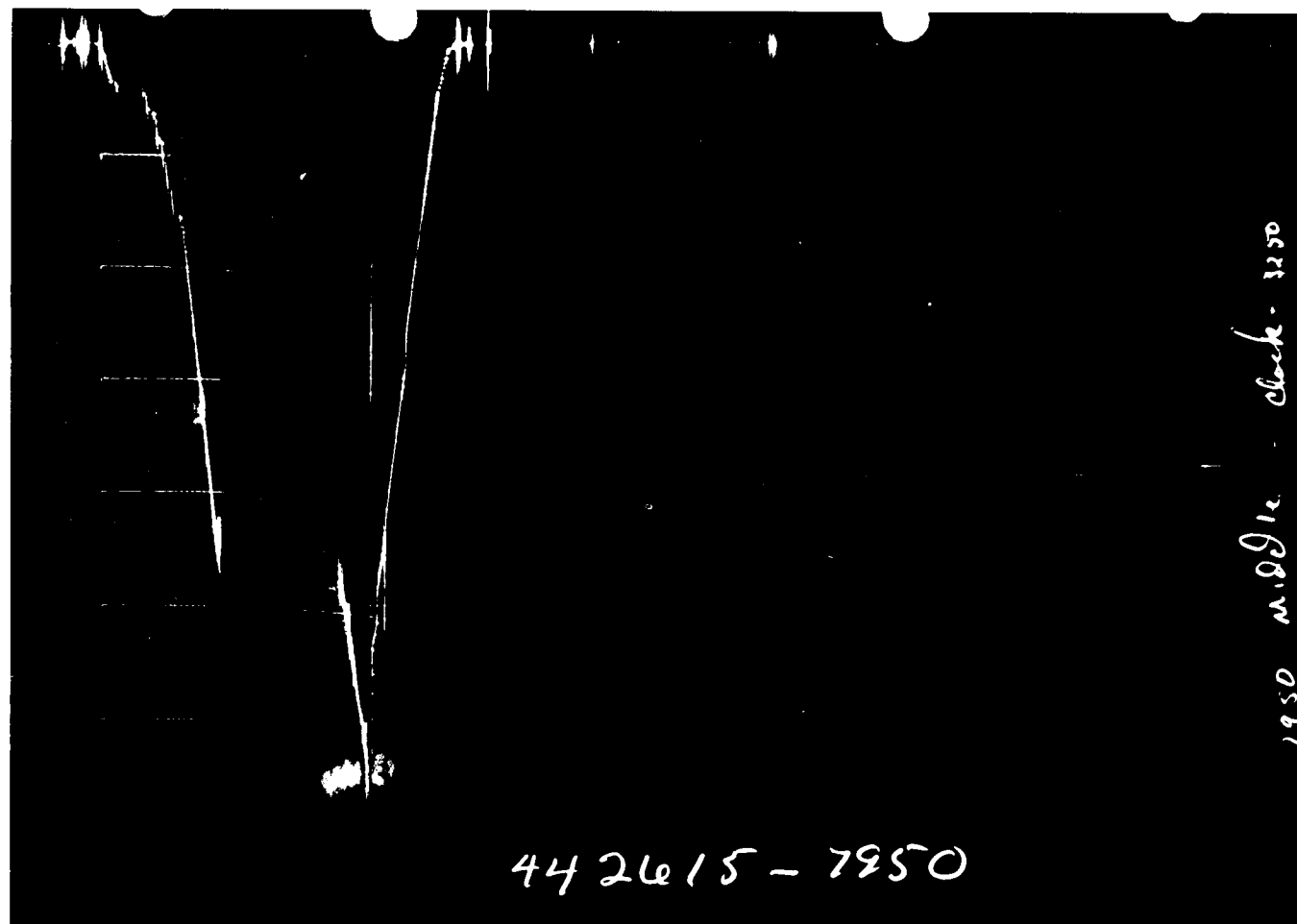
TICKET NO. 44261500  
09-FEB-83  
ROCK SPRINGS

# FORMATION TESTING SERVICE REPORT



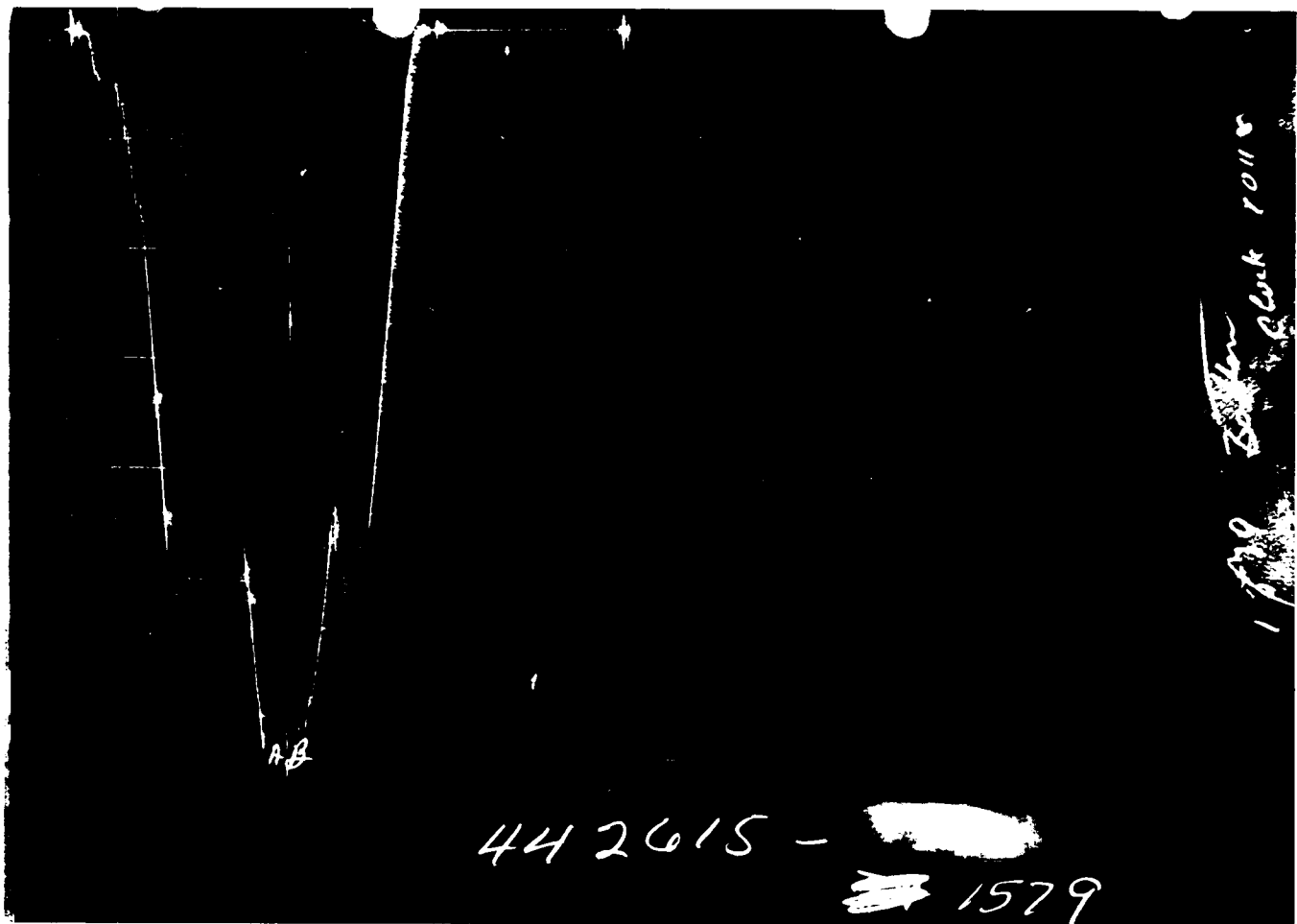
GAUGE NO: 7951 DEPTH: 13861.0 BLANKED OFF: NO HOUR OF CLOCK: 72

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		6274.9			
B	FINAL HYDROSTATIC		6262.4			



GAUGE NO: 7950 DEPTH: 13866.0 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	FINAL HYDROSTATIC					



GAUGE NO: 1579 DEPTH: 13936.0 BLANKED OFF: YES HOUR OF CLOCK: 72

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		6308.5			
B	FINAL HYDROSTATIC		6300.8			

**EQUIPMENT & HOLE DATA**

FORMATION TESTED: ELEPHANT CANYON  
 NET PAY (ft): \_\_\_\_\_  
 GROSS TESTED FOOTAGE: 51.0  
 ALL DEPTHS MEASURED FROM: KELLY BUSHING  
 CASING PERFS. (ft): \_\_\_\_\_  
 HOLE OR CASING SIZE (in): 6.250  
 ELEVATION (ft): 0  
 TOTAL DEPTH (ft): 13940.0  
 PACKER DEPTH(S) (ft): 13881, 13889  
 FINAL SURFACE CHOKE (in): 0.250  
 BOTTOM HOLE CHOKE (in): 0.750  
 MUD WEIGHT (lb/gal): 8.80  
 MUD VISCOSITY (sec): \_\_\_\_\_  
 ESTIMATED HOLE TEMP. (°F): \_\_\_\_\_  
 ACTUAL HOLE TEMP. (°F): 278 @ 13932.0 ft

TICKET NUMBER: 44261500DATE: 1-30-83 TEST NO: 2TYPE DST: OPEN HOLEHALLIBURTON CAMP:  
ROCK SPRINGSTESTER: NICKERSONWITNESS: MIKE THORTONDRILLING CONTRACTOR:  
LOFFLAND #58**FLUID PROPERTIES FOR  
RECOVERED MUD & WATER**

SOURCE	RESISTIVITY	CHLORIDES
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

**SAMPLER DATA**

Pstg AT SURFACE: \_\_\_\_\_  
 cu.ft. OF GAS: \_\_\_\_\_  
 cc OF OIL: \_\_\_\_\_  
 cc OF WATER: \_\_\_\_\_  
 cc OF MUD: \_\_\_\_\_  
 TOTAL LIQUID cc: \_\_\_\_\_

**HYDROCARBON PROPERTIES**

OIL GRAVITY (°API): \_\_\_\_\_ @ \_\_\_\_\_ °F  
 GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_  
 GAS GRAVITY: \_\_\_\_\_

**CUSHION DATA**

TYPE	AMOUNT	WEIGHT
<u>WATER (FT.)</u>	<u>3500.0</u>	<u>8.34</u>

**RECOVERED:**MEASURED FROM  
TESTER VALVE**REMARKS:**


















-MISRUN-

TEST NOT COMPLETED DUE TO SUSPECTED LEAK

CLOCK STOPPED ON BT 7950...NO HYDROSTATIC READINGS RECORDED.

[illegible]



		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	3.500	2.602	12847.0	
3		DRILL COLLARS.....	4.750	2.250	912.0	
50		IMPACT REVERSING SUB.....	5.000	2.120	1.0	13758.0
3		DRILL COLLARS.....	4.750	2.250	91.0	
13		DUAL CIP SAMPLER.....	5.000	0.750	5.8	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	13856.0
80		AP RUNNING CASE.....	5.000	3.060	4.1	13861.0
80		AP RUNNING CASE.....	5.000	3.060	4.1	13866.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
70		OPEN HOLE PACKER.....	5.500	0.500	5.8	13881.0
18		DISTRIBUTOR VALVE.....	5.000	1.000	2.0	
70		OPEN HOLE PACKER.....	5.500	0.500	5.8	13889.0
19		ANCHOR PIPE SAFETY JOINT.....	5.750	1.750	4.0	
20		FLUSH JOINT ANCHOR.....	5.750	2.400	37.0	
82		TEMPERATURE RUNNING CASE.....	5.750		4.1	13932.0
81		BLANKED-OFF RUNNING CASE.....	5.750		4.1	13936.0
TOTAL DEPTH						13940.0

EQUIPMENT DATA

↑  
278°F

442615-TE 78

TEMP 206° TE 78



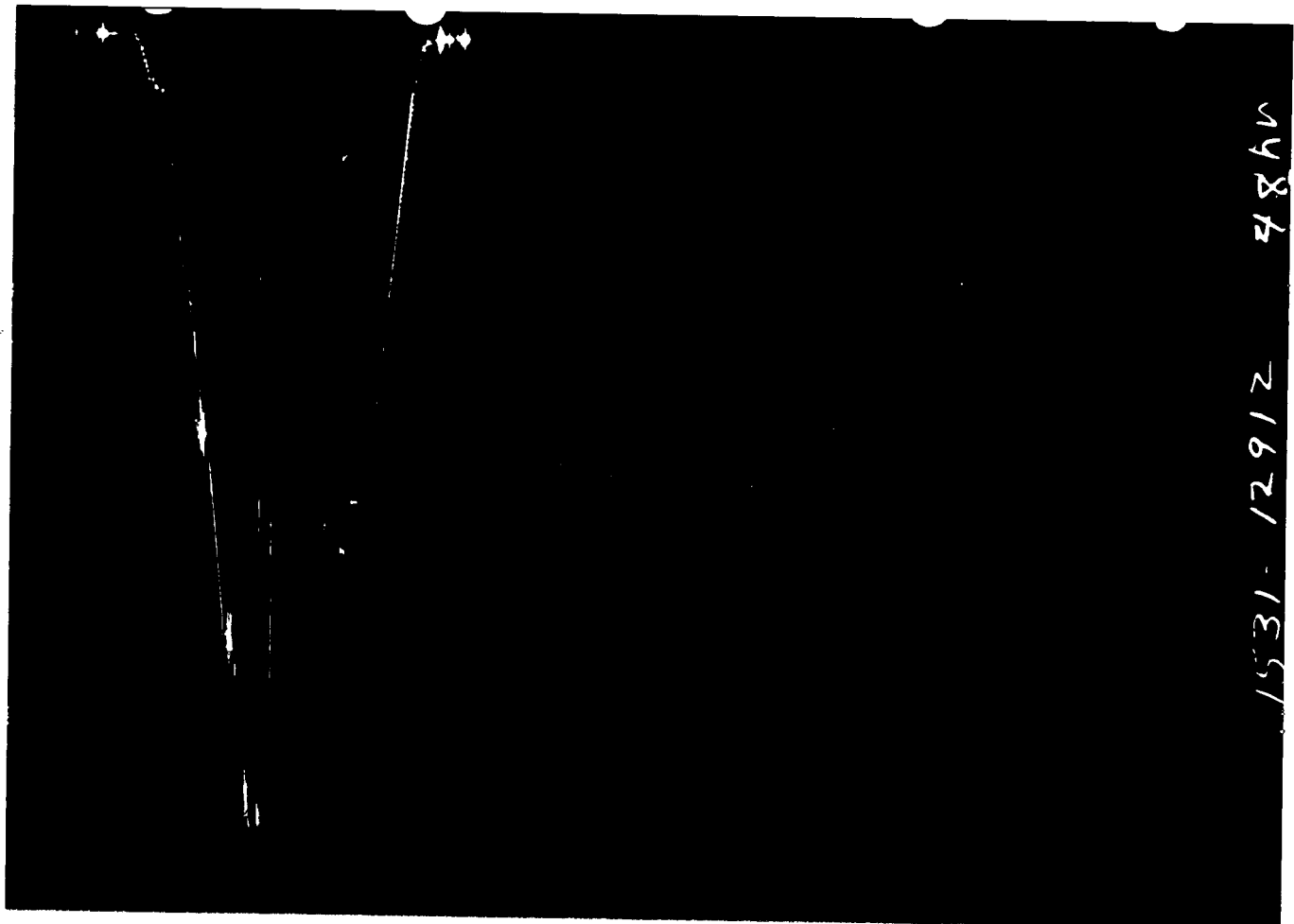
TICKET NO. 44261600

09-FEB-83

ROCK SPRINGS

# FORMATION TESTING SERVICE REPORT

DIXIE UNIT		2		4		13901.1 - 13940.1		ARCO PETROLEUM COMPANY	
LEASE NAME		WELL NO.		TEST NO.		TESTED INTERVAL		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RNG.		2 - 33S - 4 1/2 WEST		FIELD AREA		WILDCAT		COUNTY GARFIELD STATE UTAH NM/PW	



GAUGE NO: 1531 DEPTH: 13874.0 BLANKED OFF: NO HOUR OF CLOCK: 48

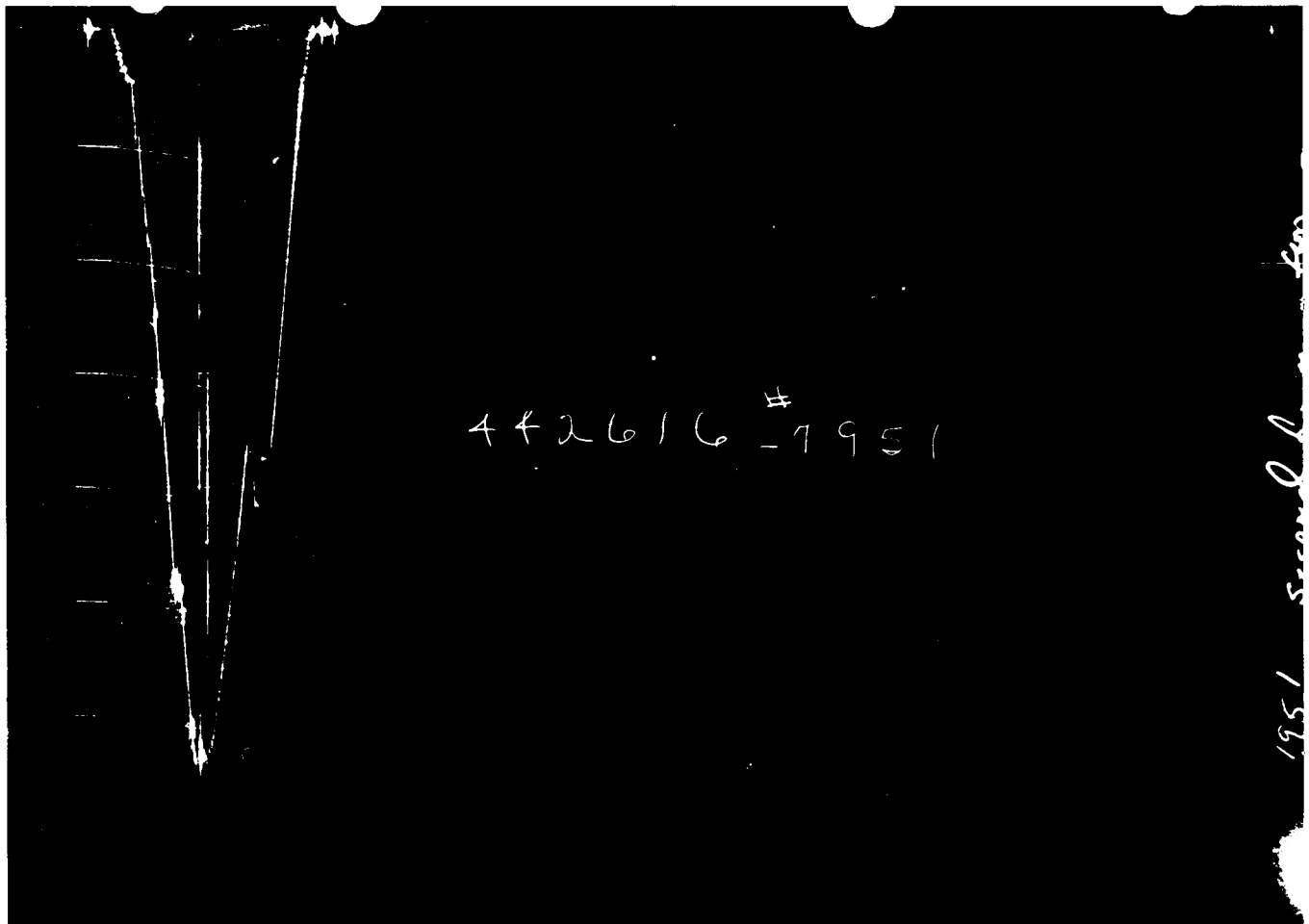
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	6372	6416.5			
B	FINAL HYDROSTATIC		6416.5			

442616-1531<sup>#</sup>

A B

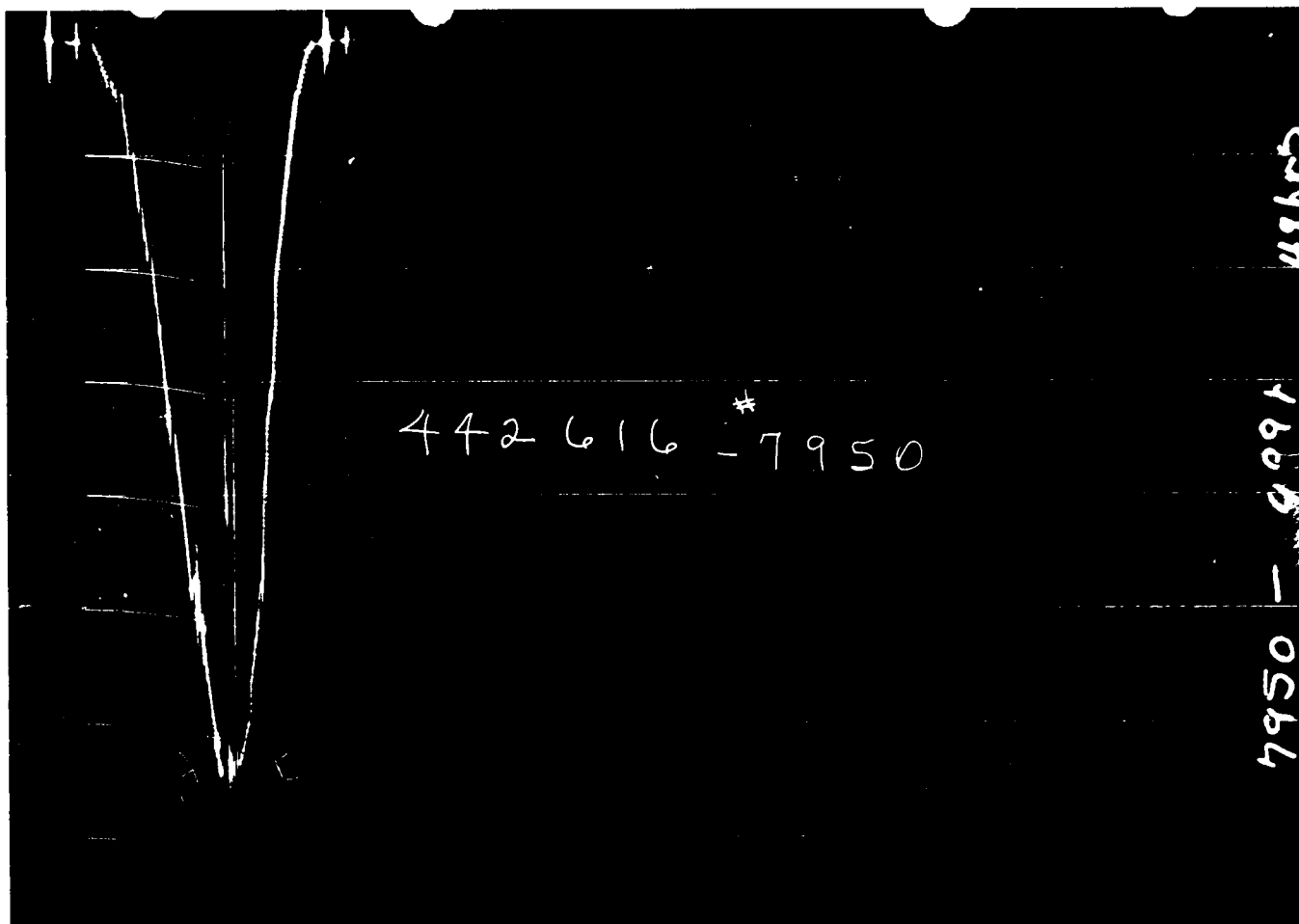
2

1531



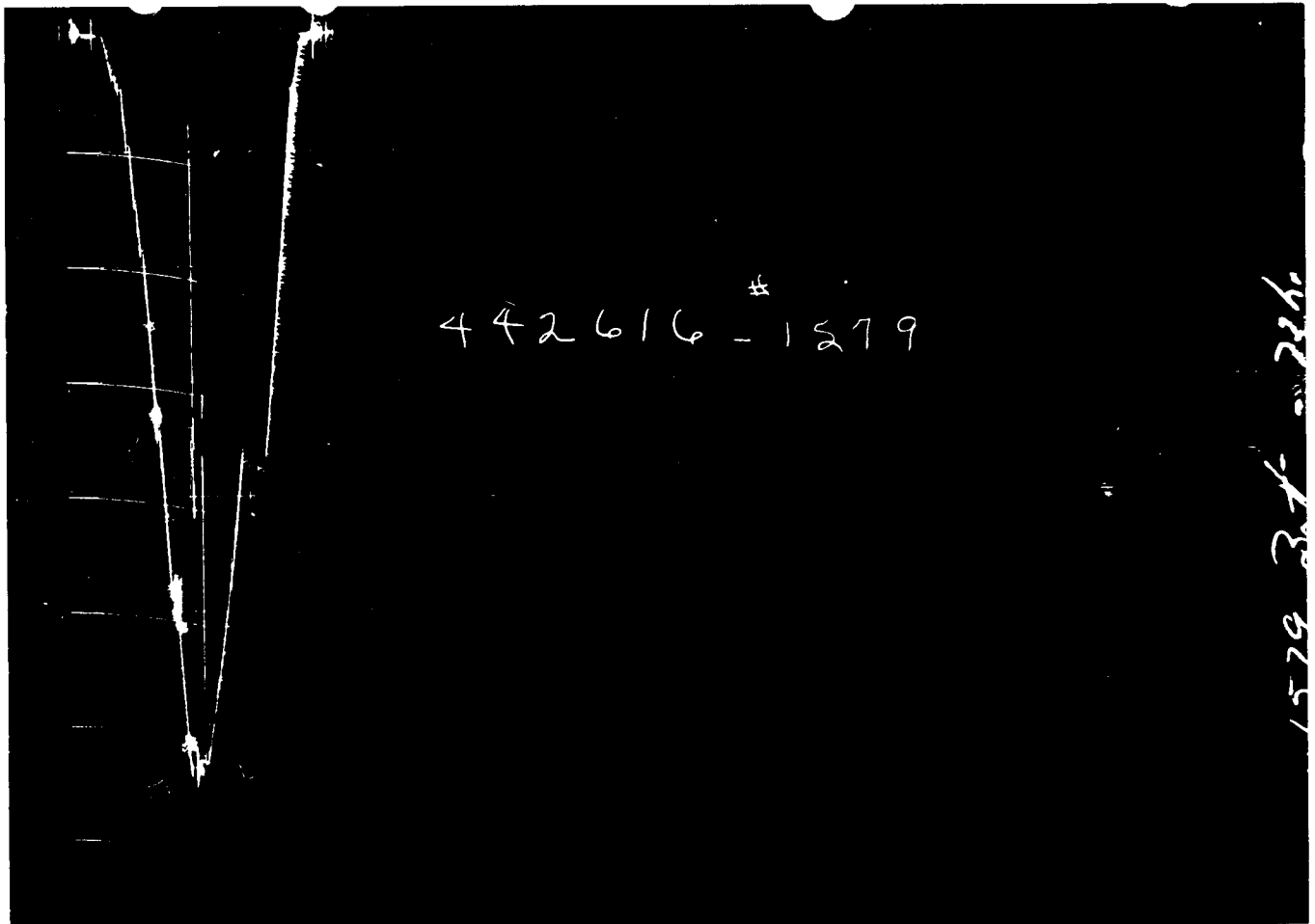
GAUGE NO: 7951 DEPTH: 13878.0 BLANKED OFF: NO HOUR OF CLOCK: 72

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		6413.0			
B	FINAL HYDROSTATIC		6413.0			



GAUGE NO: 7950 DEPTH: 13932.0 BLANKED OFF: YES HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		6441.7			
B	FINAL HYDROSTATIC		6441.7			



GAUGE NO: 1579 DEPTH: 13936.0 BLANKED OFF: YES HOUR OF CLOCK: 72

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	6381	6456.8			
B	FINAL HYDROSTATIC		6456.8			



## EQUIPMENT &amp; HOLE DATA

FORMATION TESTED: ELEPHANT CANYON  
 NET PAY (ft): \_\_\_\_\_  
 GROSS TESTED FOOTAGE: 39.0  
 ALL DEPTHS MEASURED FROM: KELLY BUSHING  
 CASING PERFS. (ft): \_\_\_\_\_  
 HOLE OR CASING SIZE (in): 7.625  
 ELEVATION (ft): 0  
 TOTAL DEPTH (ft): 13940.0  
 PACKER DEPTH(S) (ft): 13894. 13901  
 FINAL SURFACE CHOKE (in): 0.250  
 BOTTOM HOLE CHOKE (in): 0.750  
 MUD WEIGHT (lb/gal): 8.80  
 MUD VISCOSITY (sec): 60  
 ESTIMATED HOLE TEMP. (°F): \_\_\_\_\_  
 ACTUAL HOLE TEMP. (°F): 206 @ 13932.0 ft

TICKET NUMBER: 44261600DATE: 1-31-83 TEST NO: 4TYPE DST: OPEN HOLEHALLIBURTON CAMP:  
ROCK SPRINGSTESTER: NICKERSON  
SLAUGHWITNESS: MIKE THORTONDRILLING CONTRACTOR:  
LOFFLAND #58FLUID PROPERTIES FOR  
RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
CIP SAMPLER	<u>2.500 @ 74 °F</u>	<u>2500 ppm</u>
_____	<u>_____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ °F</u>	<u>_____ ppm</u>

## SAMPLER DATA

Pstg AT SURFACE: 0  
 cu.ft. OF GAS: 0.00  
 cc OF OIL: 0  
 cc OF WATER: 0  
 cc OF MUD: 2000  
 TOTAL LIQUID cc: 2000

## HYDROCARBON PROPERTIES

OIL GRAVITY (°API): \_\_\_\_\_ °F  
 GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_  
 GAS GRAVITY: \_\_\_\_\_

## CUSHION DATA

TYPE	AMOUNT	WEIGHT
WATER (FT.)	<u>3500.0</u>	<u>8.34</u>
_____	_____	_____



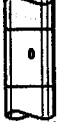














RECOVERED:

MEASURED FROM  
TESTER VALVE

REMARKS:

-MISRUN-



		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	3.500	2.602	12957.0
3		DRILL COLLARS.....	4.750	2.250	799.0
50		IMPACT REVERSING SUB.....	5.000	2.250	1.0 13756.0
3		DRILL COLLARS.....	4.750	2.250	91.0
13		DUAL CIP SAMPLER.....	5.000	0.750	5.8
60		HYDROSPRING TESTER.....	5.000	0.750	5.0 13868.0
80		AP RUNNING CASE.....	5.000	3.060	4.1 13874.0
80		AP RUNNING CASE.....	5.000	3.060	4.1 13878.0
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8
70		OPEN HOLE PACKER.....	5.500	0.500	5.8 13894.0
18		DISTRIBUTOR VALVE.....	5.000	1.000	2.0
70		OPEN HOLE PACKER.....	5.500	0.500	5.8 13901.0
19		ANCHOR PIPE SAFETY JOINT.....	5.750	1.750	4.0
20		FLUSH JOINT ANCHOR.....	5.750	2.400	25.0
81		BLANKED-OFF RUNNING CASE.....	5.750		4.1 13932.0
81		BLANKED-OFF RUNNING CASE.....	5.750		4.1 13936.0
TOTAL DEPTH					13940.0

EQUIPMENT DATA

**CONFIDENTIAL**  
UNITED STATESDEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.

1. oil well <input checked="" type="checkbox"/> gas well <input type="checkbox"/> other <input type="checkbox"/>
2. NAME OF OPERATOR ARCO Oil and Gas Company Division of Atlantic Richfield Company
3. ADDRESS OF OPERATOR P. O. Box 5540, Denver, Colorado 80217
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) AT SURFACE: 960' FSL & 1045' FWL AT TOP PROD. INTERVAL: AT TOTAL DEPTH: Approx the same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐CHANGE ZONES ☐ABANDON\* ☐

(other) N.O. SETTING 7-5/8" CASING

## SUBSEQUENT REPORT OF:

☐☐☐☐☐☐☐☐☐

DEC 15 1982

DIVISION OF

OIL GAS &amp; MINING

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

5. LEASE U-27242
6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---
7. UNIT AGREEMENT NAME Dixie Unit
8. FARM OR LEASE NAME ---
9. WELL NO. 2
10. FIELD OR WILDCAT NAME Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 2-33S-4W
12. COUNTY OR PARISH Garfield
13. STATE Utah
14. API NO. 43-017-30115
15. ELEVATIONS (SHOW DF, KDB, AND WD) 7343' GR

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled to 10,285'. Logged. RU & ran 257 jts 7-5/8" casing as follows: 39#, N-80, LTC float shoe; 2-XO jts 44.67#, S00-95, LTC, box; 39#, N-80, LTC float collar; XO jt 44.67#, S00-95, LTC box; 71 jts 44.67#, S00-95, ABFL4S; XO jt 44.67#, S00-95, LTC box; 39#, N-80, LTC stage collar; XO jt 44.67#, LTC box; 34 jts 44.67#, S00-95, ABFL4S; XO jt 44.67#, S00-95, LTC box; and 147 jts 29.7#, S-95, LTC casing. Cemented with--pumped 10 bbls spacer, 30 bbls mud flush followed with 1100 sx 50/50 poz mix with 1.25#/sx gilsonite, 1/4#/sx flocele mix @ 13.2 ppg; followed by 200 sx Class "H" w/ 18% salt, 1/4#/sx flocele, 3/4% CFR-2 @ 16.7 ppg. Displaced with 450 bbls mud. Bumped plug with 3000 psi. Checked floats - OK. CIP 11-27-82. Full returns. Dropped bomb to open DV. Opened DV tool. Circl 7-5/8" x 10-3/4" annulus. Rec 5 bbl cement on bottoms up. WOC & circl annulus. Close rams. (OVER)

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE Acting District Manager DATE 12-13-82  
(This space for Federal or State office use)APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

Test annulus to 850 psi for 5 mins - OK. Release and open rams.  
Mix and pump spacer (10 bbl) and 30 bbls mud flush, 450 sx Class  
"H" cement with 3/4% CFR-2 @ 15.6 ppg. Displaced with 364 bbls  
and bumped plug with 2000 psi. Close stage collar. Cut casing.  
Tested pipe, blind and choke lines to 5000 psi, hydril to 3500 psi-  
OK. Calculate top of cement @ 5000' in 7-5/8" annulus. Ran leak-  
off test. Coring

4900' - 4700' 45 sx Class B, G or H (+ 55 cu.ft.)

2000' - 1800' 45 sx Class B, G or H (+ 55 cu.ft.)

25 sx Class B, G, or H inside 7-5/8" casing at surface

15 sx Class B, G, or H in 10-3/4" x 7-5/8" casing annulus at surface

Use 10 bbls water spacer ahead of all cement plugs and 10 bbls water behind all cement plugs. Mix cement to  $\pm$  15.6 ppg.

Clean location, level all holes, fence pits and rehabilitate as per APD.

Verbal permission for above procedure per Asad Raffoul (BLM) to Pete Tibbitts (ARCO) on 2-18-83.

Verbal permission per Asad Raffoul (BLM) to Pete Tibbitts (ARCO) to inject pit fluids anywhere below casing shoe (below the Chinle formation) as part of P & A procedure on 2-23-83.

# WELL INSPECTION RECORD

RIG NUMBER: 58

Equipment & rig in excellent shape. Pit is lined and is also in  
excellent shape.

SEND TYPED COPY TO COMPANY: YES\_\_\_\_\_ No x

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

[illegible]

1. oil ☐ well ☐ gas ☐ well ☐ other ☐
- 
2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company
- 
3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217
- 
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same
- 
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. L E  
U-27242
- 
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---
- 
7. UNIT AGREEMENT NAME  
Dixie Unit
- 
8. FARM OR LEASE NAME  
---
- 
9. WELL NO.  
2
- 
10. FIELD OR WILDCAT NAME  
Wildcat
- 
11. SEC., T., R., M., OR BLK. AND SURVEY OR  
AREA  
2-33S-4-1/2W
- 
- |                                  |                   |
|----------------------------------|-------------------|
| 12. COUNTY OR PARISH<br>Garfield | 13. STATE<br>Utah |
|----------------------------------|-------------------|
- 
14. API NO.  
43-017-30115
- 
15. ELEVATIONS (SHOW DF, KDB, AND WD)  
7343' GR

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF

TEST WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>
ABANDON*	<input checked="" type="checkbox"/>
(other)	

--	--	--	--	--	--	--	--

MAR 02 1980

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

# DIVISION OF

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Present status: 16" casing set @ 2503' with 2600 sx, cement to surface  
10-3/4" casing set @ 7742' with 1200 sx poz + 1080 sx  
Class "H" (3084 cu.ft.) + DV @ +2700' with cement to surface.  
TOC on 1st stage @ 6800' from CBL.  
7-5/8" casing set @ 10,278' with 1100 sx + 200 sx (1923 cu.ft.)  
+DV @ 7500' with 450 sx (530 cu.ft.). Calc TOC @ 4700'.

Propose to P & A as follows:

14,200' - 14,000' 40 sx Class B, G or H (+ 50 cu.ft.)  
 10,400' - 10,100' 60 sx Class B, G or H (+ 75 cu.ft.)  
 7,550' - 7,300' 50 sx Class B, G or H (+ 60 cu.ft.)  
 (SEE ATTACHED)

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

- 18. I hereby certify that the foregoing is true and correct**

SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 2-28-83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_



UNIT STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☐  
well well other2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 802174. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17  
below.)  
AT SURFACE: 960' FSL & 1045' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Approx the same16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,  
REPORT, OR OTHER DATA

## REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) ☐

## SUBSEQUENT REPORT OF:

☐  
☐  
☐  
☐  
☐  
☐  
☐  
☒

5. LI

U-272

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Dixie Unit

8. FARM OR LEASE NAME

9. WELL NO.

2

10. FIELD OR WILDCAT NAME

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR  
AREA

2-33S-4-1/2W

12. COUNTY OR PARISH 13. STATE

Garfield

Utah

14. API NO.

43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)

7343' GR

(NOTE: Report results of multiple completion or zone  
change on Form 9-330.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates,  
including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and  
measured and true vertical depths for all markers and zones pertinent to this work.)\*Finished logging. RIH with DC & LD DC's. RIH open-ended. Circle  
to plug. Plugged as follows:Plug #1 14,203'-14,003' (200') 46 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 3 bbls water and 98 bbls mud.  
Plug #2 10,416'-10,116' (300') 66 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 8 bbls water and 71 bbls mud.  
Plug #3 7,568'- 7,318' (250') 68 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 3 bbls water and 50 bbls mud.  
Plug #4 4,908'- 4,708' (200') 49 sx Class "H" (15.6 ppg). Displaced with  
3 bbls water and 31 bbls mud.

(SEE ATTACHED)

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 2-28-83

W. A. Walther, Jr.

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:ACCEPTED  
APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 3/1/83  
BY: [Signature]

\*See Instructions on Reverse Side

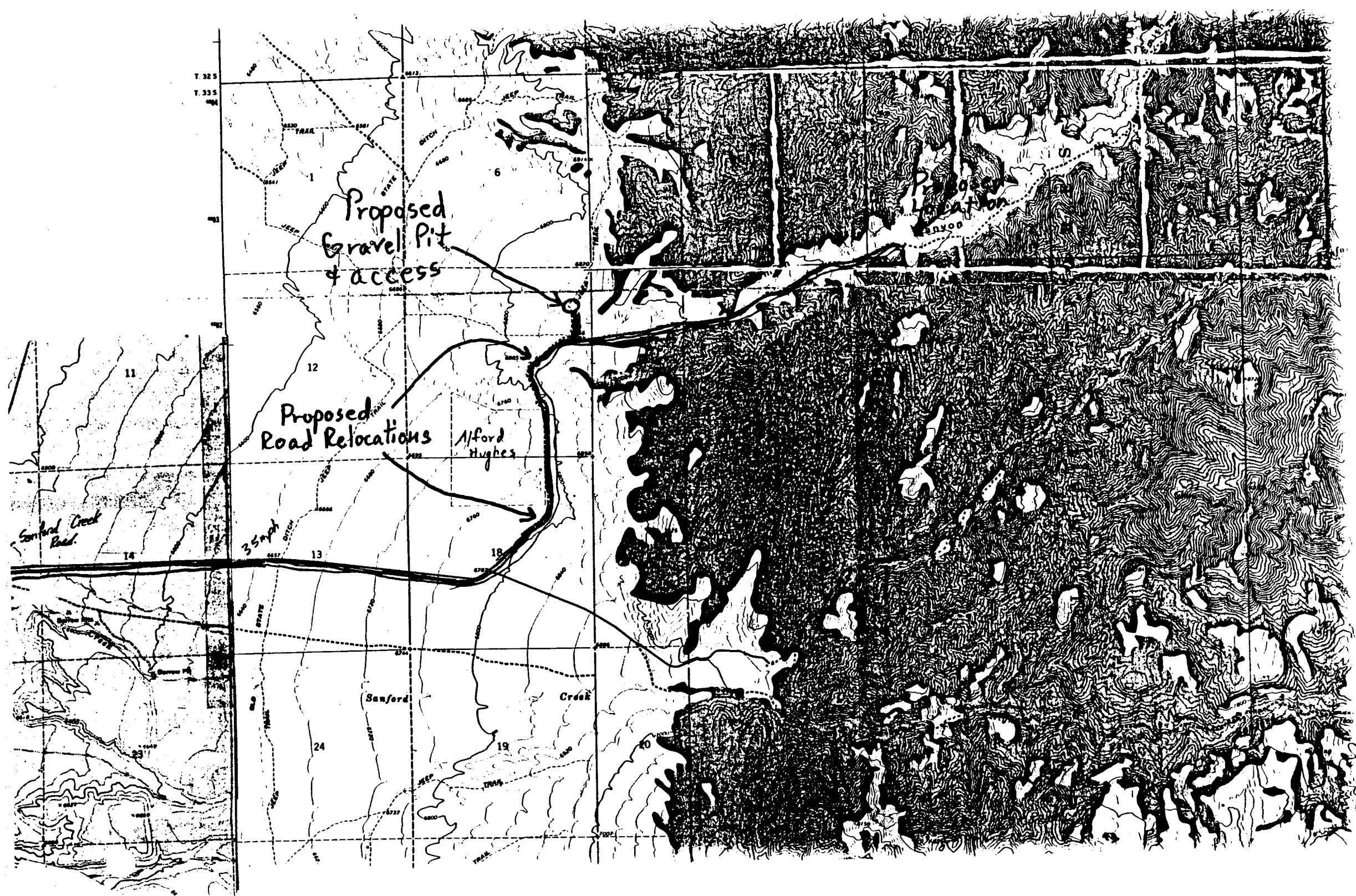


Exhibit # 5

T. 32 S  
T. 33 S  
404

Proposed  
Gravel Pit  
& access

Proposed  
Road Relocations

Alford  
Hughes

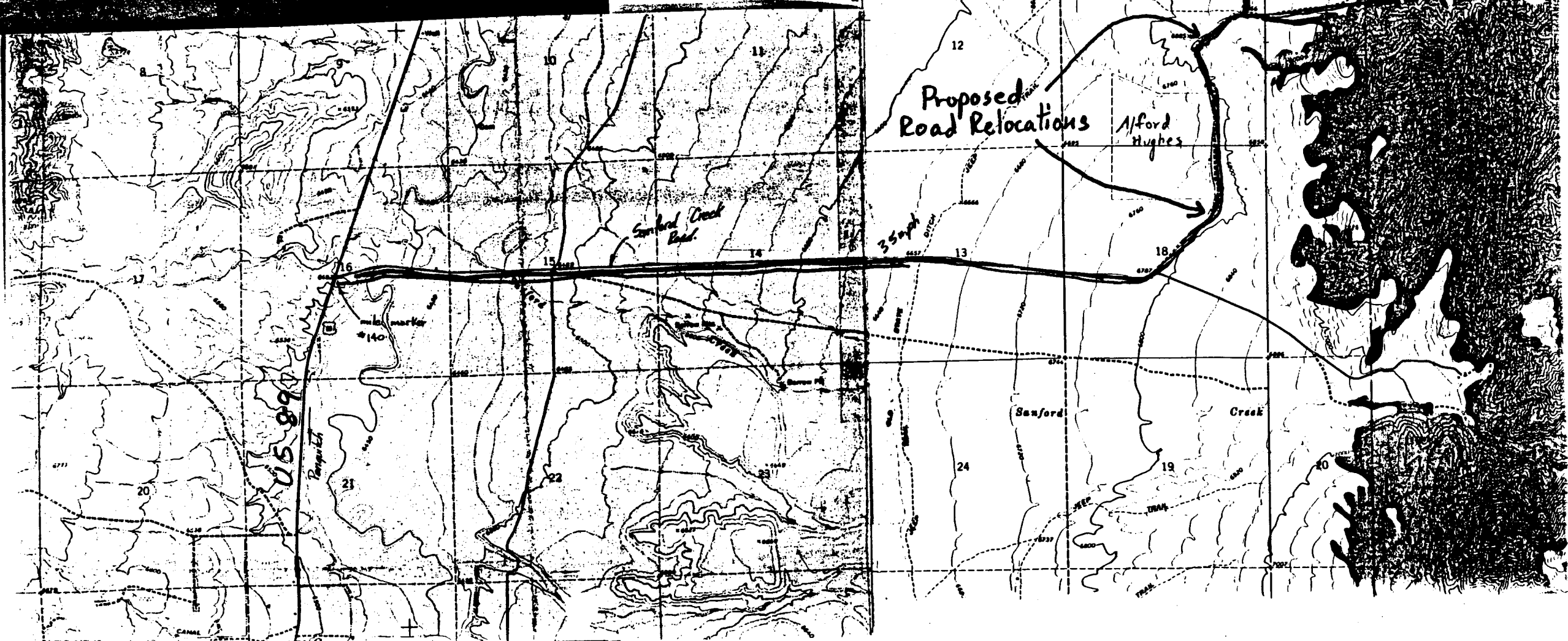
Sanford Creek  
Road

Sanford Creek

0589

Ranger

mile marker  
140



TIGHT HOLE  
UNIT STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ gas ☐ other ☐2. NAME OF OPERATOR ARCO Oil and Gas Company  
Division of Atlantic Richfield Company3. ADDRESS OF OPERATOR  
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 960' FSL &amp; 1045' FWL

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) ☐

SUBSEQUENT REPORT OF:

☐  
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☐  
☐  
☒5. LI  
U-272426. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME

Dixie Unit

8. FARM OR LEASE NAME  
---

9. WELL NO.

2

10. FIELD OR WILDCAT NAME

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

2-33S-4-1/2W

12. COUNTY OR PARISH

Garfield

13. STATE

Utah

14. API NO.

43-017-30115

15. ELEVATIONS (SHOW DF, KDB, AND WD)

7348' CR

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Finished logging. RIH with DC &amp; LD DC's. RIH open-ended. Circle to plug. Plugged as follows:

Plug #1 14,203'-14,003' (200') 46 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 3 bbls water and 98 bbls mud.

Plug #2 10,416'-10,116' (300') 66 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 8 bbls water and 71 bbls mud.

Plug #3 7,568'- 7,318' (250') 68 sx Class "H" with 0.6% HR-12 (15.6 ppg).  
Displaced with 3 bbls water and 50 bbls mud.

Plug #4 4,908'- 4,708' (200') 49 sx Class "H" (15.6 ppg). Displaced with  
3 bbls water and 31 bbls mud.

(SEE ATTACHED)

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 2-28-83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:ACCEPTED  
APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 3/15/83  
BY: [Signature]

\*See Instructions on Reverse Side

DIXIE UNIT #2  
Section 2-33S-4-1/2W  
Garfield County, Utah

Plug #5 1,998'- 1,798' (200') 49 sx Class "H". Displaced with 3 bbls  
water and 10 bbls mud.

Plug #6 125'- Surface (125') 25 sx Class "H". Displaced HOWCO lines.

WELL PLUGGED AND ABANDONED @ 9:50 am 2-26-83.

Tied into 7-5/8" x 10-3/4" annulus. Est 1-1/2 BPM @ 1100 psi. Mix and  
pumped 20 sx Class "H" cement and displaced. FP 2400 psi. LD kelly,  
rat and mouse hole. ND BOPE and clean mud tanks. Released rig @ 6:00 am  
2-27-83.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.1

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input type="checkbox"/>	DRY <input checked="" type="checkbox"/>	Other _____		
b. TYPE OF COMPLETION:		NEW WELL <input type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESVR. <input type="checkbox"/>	Other _____
2. NAME OF OPERATOR ARCO Oil and Gas Company, Division of Atlantic Richfield Company							
3. ADDRESS OF OPERATOR P. O. Box 5540, Denver, Colorado 80217							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 960' FSL & 1045' FWL At top prod. interval reported below At total depth Approx the same							
14. PERMIT NO. Mr. Martens				DATE ISSUED 7-27-82			
15. DATE SPUDDED 8-12-82		16. DATE T.D. REACHED 2-19-83		17. DATE COMPL. (Ready to prod.) P & A 2-26-83		18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 7375' KB	
20. TOTAL DEPTH, MD & TVD 15,251'		21. PLUG, BACK T.D., MD & TVD Surface P & A		22. IF MULTIPLE COMPL., HOW MANY* P & A		23. INTERVALS DRILLED BY 0-15,251'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* PLUGGED AND ABANDONED						19. ELEV. CASINGHEAD 7343' GL	
25. WAS DIRECTIONAL SURVEY MADE YES						12. COUNTY OR PARISH Garfield	
26. TYPE ELECTRIC AND OTHER LOGS RUN DLL, MSFL, FDC, CNL, GR, Cal, BHC-Sonic, Dipmeter, FIL Velocity Survey						13. STATE Utah	
27. WAS WELL CORED YES						28. IF MULTIPLE COMPL., HOW MANY* P & A	
29. LINER RECORD							
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
	P & A	NONE				P & A	NONE
30. TUBING RECORD							
31. PERFORATION RECORD (Interval, size and number) P & A NONE				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED P & A NONE			
33. PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) PLUGGED AND ABANDONED				WELL STATUS (Producing or shut-in)	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)						TEST WITNESSED BY	
35. LIST OF ATTACHMENTS 2 of #26 above and Daily Well History							
36. I hereby certify* that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED W. A. Walther, Jr.		TITLE Operations Manager				DATE 3-7-83	

\*(See Instructions and Spaces for Additional Data on Reverse Side)

## INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal land office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

tion and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

or Federal once for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. For each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 30:** "Sacks Cement": Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**Item 31:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**Item 32:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 23 above.)

[illegible]

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

28. CASING RECORD:

<u>Size</u>	<u>Weight, LB/FT.</u>	<u>Depth Set</u>	<u>Hole Size</u>
36"	142.68#	107'	---
26"	102.58#	135'	32"
16"	84# & 65#	2,503'	22"
10-3/4"	60.7#, 55.5# & 51.0#	7,742'	14-3/4"
7-5/8"	39#, 44.67#, & 29.7#	10,278'	9-1/2"

28. CASING CEMENTING RECORD:

36" casing cemented with 14.0 cu. yds. of redimix in 2 stages

26" casing cemented with 350 sx Class "B" cement with 2% CaCl<sub>2</sub>, wt. 14.8#, cement circl to within 2' of surface.

16" casing cemented with 30 bbls water flush ahead; lead in with 2000 sx HOWCO lite, 12.5# gilsonite @ 3% CaCl<sub>2</sub>; tail in with 600 sx Class "B", 2% CaCl<sub>2</sub>; 2 bbls water spacer, 44.2 bbls mud displace. Full returns throughout, cement to surface.

10-3/4" casing cemented in stages; first 1200 sx 50/50 poz mix with 4% total gel, 18% salt, 3/4% CFR-2 + 1/4#/sx flocele (yield per sx 1.49 & wt of slurry 14.15 ppg). Tailed in with 1080 sx Class "H", 18% salt, 3/4% CFR-2 & 1/4#/sx flocele (yield 1.20 & wt 16.0 ppg). Cement mixed @ 8 BPM with good returns throughout mixing and displacing. TOC found by CBL log at 6800'. Floats held. Dropped DV opening bomb and opened DV at +2700'. Circl through DV. Cemented through DV as follows: mixed 1677 sx 50/50 poz mix with 2% gel + 1/4#/sx flocele (yield 1.26 & wt 14.15 ppg). Cement circl to surface.

7-5/8" casing cemented with 10 bbls spacer, 30 bbls mud flush followed with 1100 sx 50/50 poz mix with 1.25#/sx gilsonite, 1/4#/sx flocele, mix @ 13.2 ppg. Followed with 200 sx Class "H" with 18% salt, 1/4#/sx flocele, 3/4% CFR-2 @ 16.7 ppg. Displaced with 450 bbls mud. Bumped plugs. Floats held OK. Full returns. Dropped bomb to open DV at 7500'. Opened DV tool. Circl 7-5/8" x 10-3/4" annulus. Mix and pump 10 bbls spacer & 30 bbls mud flush, 450 sx Class "H" cement with 3/4% CFR-2 @ 15.6 ppg. Displace with 364 bbls and bumped plug with 2000 psi. Closed stage collar. Calculated TOC at 4700'.



DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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37. SUMMARY OF POROUS ZONES:

Core #1	10290'-10308'	Core barrel jammed - recov'd 16'
Core #2	11865'-11891'	Recov'd 26'
Core #3	11891'-11949'	Recov'd 58'
Core #4	11949'-11954'	Core barrel jammed - recov'd 3'
Core #5	11954'-11969'	Recov'd 12'
Core #6	11969'-11976'	Recov'd 7'
Core #7	11976'-11982'	Core barrel jammed - recov'd 6'
Core #8	11982'-11983'	Recov'd 6"

DST #1	5595'- 5648'
DST #2	10238'-10308'
DST #3	13889'-13940'
DST #4	13901'-13940'

All DST's except DST #2 were unsuccessful  
due to inadequate packer seats.

38. GEOLOGIC MARKERS:

Brian Head	Surface
Clarion	3121'
Wahweap	4554'
Straight Cliffs	4580'
Tropic	5777'
Dakota	6332'
Carmel	6637'
Navajo	7727'
Kayenta	9390'
Wingate	9900'
Chinle	9993'
Shinarump	10290'
Moenkopi	10427'
Virgin	11273'
Sinbad	11680'
Kaibab	11914'
Toroweap	12254'
Cedar Mesa	12868'
El Canyon	13618'
Callville	14350'
Molas	14664'
Redwall	14706'

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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PLUGGED AND ABANDONED AS FOLLOWS:

Plug #1	14,203' - 14,003' (200')	46 sx Class "H" cement + 0.6% HR-12
Plug #2	10,416' - 10,116' (300')	66 sx Class "H" cement + 0.6% HR-12
Plug #3	7,568' - 7,318' (250')	68 sx Class "H" cement + 0.6% HR-12
Plug #4	4,908' - 4,708' (200')	49 sx Class "H" cement
Plug #5	1,998' - 1,798' (200')	49 sx Class "H" cement
Plug #6	125' - Surface (125')	25 sx Class "H" cement

Outside cement plug 20 sx  $\pm$  100' in 10-3/4" x 7-5/8" annulus

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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2/18/83 14,997 Day-190 (4') - RIH inspecting BHA. (7-5/8 @ 10,278)  
MW: 8.9# Vis: 55 Pv/Yp: 25/13  
RIH chg'g out 3 pt & 6 pt mmrs. Rnd to btm, wrkd jk sub & POH.

2/19-22/83 15,251 Day-194 (254') - Logging. (7-5/8 @ 10,278)  
MW: 8.9# Vis: 53 Pv/Yp: 27/11  
Fin TIH. Rnd 14,967-14,997'. Drld to PD. Circ & cond hole. POH to log.  
Logging tools stopped @ 10,321'. Made cond trip. Logging. Ran DLL-MSFL,  
ran FDC/CNL. Rng BHC-Sonic.

2/23/83 15,251 Day-195 (0') - Circ & cond mud f/logging. (7-5/8 @ 10,278)  
MW: 8.9# Vis: 50 Pv/Yp: 26/11  
Schl ran BHC/Sonic f/15,239-10,278', ran Dipmeter twice f/15,239-10,278'.  
Dialog attempted unsuccessfully to run csg caliper log rng into jk @  
957'. RIH w/bit & BHA. Note: BHT recorded @ 289°F w/FDC, 294°F w/BHC &  
296°F w/Dipmeter.

2/24/83 15,251 Day-196 (0') - Prep to run VSP. (7-5/8 @ 10,278)  
MW: 8.9# Vis: 51 Pv/Yp: 26/10  
Circ & cond mud & POH. Dialog ran csg calip log. RU Schl.

2/25/83 15,251 Day-197 (0') - Rng VSP chk shots. (7-5/8 @ 10,278)  
MW: 8.9# Vis: 50 Pv/Yp: 26/10  
Wrkd on vibrating truck & rng VSP.

2/26-28/83 15,251 Day-200 TD PBD: Surface. FINAL REPORT - WELL P & A, 2/26/83.  
Fin VSP chk shots. RIH w/OE DP. Sptd plugs @ 14,203-14,003',  
10,416-10,116', 7568-7318', 4908-4708', 1998-1798' & 125'-surf. Total 6  
cmt plugs, 303 sx Cl "H" + 0.6% HR-12 mixed @ 15.6 ppg. Mixed & pmpd 20 sx  
Cl "H" to 7-5/8" x 10-3/4" annulus @ 1.5 BPM w/1100 psi, FP @ 2400 psi.  
Well P & A @ 0950 hrs 2/26/83. RR @ 0600 2/27/83. ND BOPs.

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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2/8/83	14,393	Day-180 (38') - Slip & cut drlg line. (7-5/8 @ 10,278) MW: 8.8# Vis: 49 Pv/Yp: 25/11 Drld to PD & stuck pipe w/bit @ 13,298' while re-packing swivel. Sptd pipe-lax, soaked f/2 hrs & jarred stuck pipe loose. PU into 7-5/8" csg, slip & cut drlg line.
2/9/83	14,423	Day-181 (30') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 54 Pv/Yp: 20/10 Chk BOPs, inspect BHA & DCs. TIH & drld to PD.
2/10/83	14,467	Day-182 (44') - RIH w/B#69. (7-5/8 @ 10,278) MW: 8.8# Vis: 55 Pv/Yp: 25/11 Drld to PD & making bit trip. Survey: 6° @ 14,457'.
2/11/83	14,531	Day-183 (64') - Circ btms up prior to bit trip. (7-5/8 @ 10,278) MW: 8.8# Vis: 55 Pv/Yp: 22/10 FIH, wsh & rmd 46' to btm. Drld to PD & circ btms up prior to bit trip.
2/12-14/83	14,741	Day-186 (210') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 56 Pv/Yp: 24/11 Drld to PD w/bit trips @ 14,531' & 14,668'.
2/15/83	14,911	Day-187 (170') - Circ & cond mud f/log'g. (7-5/8 @ 10,278) MW: 8.8# Vis: 59 Pv/Yp: 28/12 Drld to PD @ avg ROP of 11.3 FPH.
2/16/83	14,922	Day-188 (11') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 58 Pv/Yp: 25/13 POH w/bit & RU Schl. Schl ran BHC/Sonic twice f/14,928-10,276' (WLM) due to the poor quality of GR. RIH w/bit & drld to PD.
2/17/83	14,993	Day-189 (71') - MU BHA. (7-5/8 @ 10,278) MW: 8.9# Vis: 61 Pv/Yp: 35/18 Drld to PD; experiencing hi torque. POH wrkg tite hole; bit is 3/4" out of gauge & btm 6 pt is 1/2" out of gauge. Tstd BOPE.

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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1/28/83	13,817	Day-169 (98') - Circ f/samples. (7-5/8 @ 10,278) MW: 8.8# Vis: 56 Pv/Yp: 23/12 RIH w/B#62. Rmd 13,644-13,719'. Drld to PD. Survey: 5-3/4° @ 13,786'.
1/29-31/83	13,940	Day-172 (123') - TIH w/DST #3. (7-5/8 @ 10,278) MW: 8.7+# Vis: 54 Pv/Yp: 26/13 Drld to 13,824'. TFB#63. RIH. Drld to 13,940'. Gd gas shows - 150 units CG @ 13,916'. Sht trip & cond f/DST. POH.
2/1/83	13,940	Day-173 (0') - POH w/bit & BHA. (7-5/8 @ 10,278) MW: 8.8# Vis: 60 Pv/Yp: 30/14 FIH w/DST #3 & set btm pkr @ 13,889'. Opnd tool @ 0835 hrs; no press incr & annulus FL dropped by apparent pkr failure. POH & LD DST. RIH w/bit & BHA. Circ & cond hole & POH.
2/2/83	13,947	Day-174 (7') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 60 Pv/Yp: 30/14 RIH w/DST #4 w/inhib & 3500' WC, set btm pkr @ 13,901'. Opnd tool @ 1319 hrs. No press incr & ann FL drop - close tool 1326 hrs. Fill ann & reset pkr. Opnd tool @ 1356 hrs - ann FL drop - closed tool. Pull pkrs loose. POH to FL @ 5830'. BHT 206°F, Smple Chmbr 2000 cc mud @ 2500 ppm Cl. Tst failed - no pkr seat. Rev circ, no gas. POH. LD DST tools. PU BHA. Slip & cut drlg line. Rmd 74' to btm. Drld.
2/3/83	14,078	Day-175 (131') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 52 Pv/Yp: 29/14 Drld to PD @ avg ROP of 5.5 FPH.
2/4/83	14,115	Day-176 (37') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 54 Pv/Yp: 25/10 Drld to 14,087'. POH inspected BHA. RIH w/B#65 & drld to PD.
2/5-7/83	14,355	Day-179 (240') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 50 Pv/Yp: 26/14 Drld to PD w/bit trips @ 14,175' & 14,293'. Survey: 6° @ 14,165'.

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1/18/83	13,334	Day-159 (26') - Magnafluxing BHA. (7-5/8 @ 10,278) MW: 8.8# Vis: 52 Pv/Yp: 24/12 FIH w/B#52. Drld to PD & POH. Tstd BOPs, inspected & magnafluxed BHA. LD 5 jts 4-3/4" DCs.
1/19/83	13,369	Day-160 (35') - TIH w/B#54. (7-5/8 @ 10,278) MW: 8.8# Vis: 53 Pv/Yp: 23/12 TIH w/B#53. Drld to PD. Trip f/B#54. Survey: 4° @ 13,369'.
1/20/83	13,421	Day-161 (52') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 54 Pv/Yp: 22/16 Fin TIH w/B#54. Drld to 13,406'. Drop survey & POH. TIH w/B#55. Drld to PD.
1/21/83	13,478	Day-162 (57') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 52 Pv/Yp: 19/11 Drld to 13,465' & TFB#56. Drld to PD. Survey: 4° @ 13,455'.
1/22-24/83	13,628	Day-165 (150') - POH w/B#59. (7-5/8 @ 10,278) MW: 8.8# Vis: 49 Pv/Yp: 18/9 Drld to PD w/bit trips @ 13,506', 13,577' & 13,628'. Surveys: 4° @ 13,506', 4-1/4° @ 13,577', 5° @ 13,610', 5° @ 13,628'.
1/25/83	13,651	Day-166 (23') - TIH w/B#60. (7-5/8 @ 10,278) MW: 8.8# Vis: 50 Pv/Yp: 18/10 FOH & rearranged BHA. RIH, drld to PD & POH f/B#60. Survey: 5-1/4° @ 13,651'.
1/26/83	13,679	Day-167 (28') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 50 Pv/Yp: 19/10 FIH w/B#60. Wsh & rmd 41' to btm. Drld to PD w/bit trip @ 13,671'.
1/27/83	13,719	Day-168 (40') - TIH w/B#62. (7-5/8 @ 10,278) MW: 8.8# Vis: 52 Pv/Yp: 22/11 Drld to PD. Drop survey. POH. Chg bits & chk BOP.

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1/6/83	12,906	Day-147 (54') - Drlg. MW: 8.8# Vis: 53 Pv/Yp: 18/10 Drl'd to PD w/bit trip @ 12,882'. Survey: 6-1/2° @ 12,882'. (7-5/8 @ 10,278)
1/7/83	12,957	Day-148 (51') - Rng to btm w/B#40. MW: 8.8# Vis: 52 Pv/Yp: 19/10 Drl'd to PD. TOH. Chg bit & BHA. TIH. Survey: 6° @ 12,957'. (7-5/8 @ 10,278)
1/8-10/83	13,098	Day-151 (141') - TIH w/B#44. MW: 8.7# Vis: 49 Pv/Yp: 18/7 Drl'd to PD w/bit trips @ 13,017', 13,052' & 13,058' w/avg ROP @ 3.1 to 3.7 FPH. Surveys: 6° @ 13,017', 5-3/4° @ 13,052'. (7-5/8 @ 10,278)
1/11/83	13,129	Day-152 (31') - POH w/magnet MW: 8.7# Vis: 50 Pv/Yp: 17/18 FIH w/bit #14, drld to PD & POH; rec'd small amt of thin metal from jk sub. RIH w/HOMCO 5-7/8" magnet, circ & wk magnet. (7-5/8 @ 10,278)
1/12/83	13,162	Day-153 (33') - TIH w/B#46. MW: 8.7# Vis: 48 Pv/Yp: 17/8 POH w/magnet bskt & rec'd a pin f/DP rubber & fine metals. RIH w/B#45, wsh & rmd 22' to btm. Drld to PD. POH & rec'd 5 more pcs metal f/jk sub. (7-5/8 @ 10,278)
1/13/83	13,202	Day-154 (40') - Drlg. MW: 8.7# Vis: 48 Pv/Yp: 20/8 FIH w/B#46, wsh & rm 24' to btm. Drld to 13,200', wrkd jk sub & POH rec'g 2 inserts f/bit. RIH w/Hycalog dia bit & strtd drlg @ avg ROP of 4.0 FPH. (7-5/8 @ 10,278)
1/14/83	13,232	Day-155 (30') - TIH w/B#48. MW: 8.7# Vis: 50 Pv/Yp: 22/12 Drl'd to PD. POH. Chg bits. Chk BOP. TIH. (7-5/8 @ 10,278)
1/15-17/83	13,308	Day-158 (76') - TIH w/B#52. MW: 8.8# Vis: 48 Pv/Yp: 18/9 Drl'd to PD w/bit trips @ 13,255', 13,270', 13,280' & 13,308'. Surveys: 5° @ 13,231', 4-1/2° @ 13,308'. (7-5/8 @ 10,278)

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12/23/82 11,976	Day-133 (19') - POH w/Core #6. (7-5/8 @ 10,278) MW: 8.8# Vis: 51 Pv/Yp: 24/11 Core to 11,969'. POH w/Core #5. Rec'd 12'. RIH. Cut core #6 (11,969-11,976').
12/24-27/82 12,264	Day-137 (288') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 49 Pv/Yp: 17/8 Cut Core #6 11,969-11,976' & rec'd 7'. Cut Core #7 11,976-11,982', CB jammed. POH rec'g 6'. Cut Core #8 11,982-11,982.5' & rec'd 6". RIH w/bit & BHA & drld to PD. Survey: 5-3/4° @ 12,134'.
12/28/82 12,309	Day-138 (45') - Circ samples. (7-5/8 @ 10,278) MW: 8.8# Vis: 48 Pv/Yp: 21/11 Drld to 12,282'. TFB. Drld to PD. Survey: 6° @ 12,235'.
12/29/82 12,365	Day-139 (56') - POH f/bit. (7-5/8 @ 10,278) MW: 8.8# Vis: 48 Pv/Yp: 19/10 Circ samples. No show. Drld to PD w/bit trip @ 12,327'. Survey: 6° @ 12,314'.
12/30/82 12,424	Day-140 (59') - Drlg. (7-5/8 @ 10,278) MW: 8.7# Vis: 53 Pv/Yp: 25/11 Fin bit trip @ 12,365'. Drld to PD.
12/31-1/3/83 12,723	Day-144 (299') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 49 Pv/Yp: 18/9 Drld to PD w/bit trips @ 12,543' & 12,642'. Surveys: 7° @ 12,543' & 12,629'.
1/4/83 12,765	Day-145 (42') - Inspecting BHA. (7-5/8 @ 10,278) MW: 8.7# Vis: 51 Pv/Yp: 20/10 Drld to PD & POH. Dialog ran csg profile log & inspecting BHA. Surveys: 6-1/2° @ 12,676' & 6-3/4° @ 12,765'.
1/5/83 12,852	Day-146 (87') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 52 Pv/Yp: 18/9 Fin inspecting DP & BHAs. FIH, rmd 25' to btm & drld to PD.



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12/14/82	11440	Day-124 (0') - NU extra 3-1/2" pipe ram as per USGS (7-5/8 @ 10,278) MW: 8.8# Vis: 61 Pv/Yp: 23/16 Fin running Dia-Log. RIH w/bit, wsh & rm 80' to btm. C & c hole, & POH (tight @ 11,255').
12/15/82	11495	Day-125 (55') - Drlg. (7-5/8 @ 10,278) MW: 8.8# Vis: 64 Pv/Yp: 25/16 Fin NU 3-1/2" pipe ram & tstd all BOPs. RIH w/bit & BHA. Wshd & rmd 143' to btm & drld to PD.
12/16/82	11,646	Day-126 (151') - Drlg. (7-5/8 @ 10,278) MW: 8.7+# Vis: 53 Pv/Yp: 28/14 Drld & surveyed to PD. Survey: 5-1/2° S35W @ 11,550'.
12/17/82	11,672	Day-127 (26') - Drlg. (7-5/8 @ 10,278) MW: 8.7+# Vis: 49 Pv/Yp: 25/10 Drld to 11,655'. Circ & cond hole & pmp 50 BM @ 75 vis w/10 sx Mica + 10 sx fine Quickseal. TOH to DCs & insp & magnaflux DCs & BHA. On insp, LD 2 DCs, saver sub & XO to kelly. TIH w/B#31 w/sml bridge @ 10,308'. Drld to PD.
12/18-20	11,928	Day-130 (256') - Coring. (7-5/8 @ 10,278) MW: 8.7# Vis: 52 Pv/Yp: 27/16 Drld to 11,865', circ hole cln f/core & POH. RIH w/CB. Cored f/11,865-11,891' (26'). POH w/full recovery after CB jammed. Reran CB, cored 11,891-11,928'.
12/21/82	11,954	Day-131 (26') - Circ & cond hole f/Core #4. (7-5/8 @ 10,278) MW: 8.8# Vis: 50 Pv/Yp: 24/10 Cored to 11,949'. POH & rec'd 58' core. RIH w/bit, wsh & rmd 120' to btm. Drld 5' new fm. Circ & cond f/Core #4.
12/22/82	11,954	Day-132 (0') - Coring #5. (7-5/8 @ 10,278) MW: 8.8# Vis: 50 Pv/Yp: 25/11 POH w/bit. RIH w/CB #4, cored 3' & CB jammed. POH & rec'd 3' core. Chgd corehd, circ & strtd coring.

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12/3/82	10445	Day-113 (137') - Drlg. (7-5/8 @ 10,278) MW: 8.7# Vis: 48 Pv/Yp: 14/9 (Corr f/yest report: 4699 psi was recorded ann hyd press & "mud level @ 7725'" should read as "FL @ 7725' above the rev sub".) RIH w/bit & drld to PD.
12/4-6/82	10780	Day-116 (335') - Bit trip. (7-5/8 @ 10,278) MW: 8.6# Vis: 48 Pv/Yp: 20/13 Drld & surveyed to PD w/bit trips @ 10,466' & 10,780'. Surveys: 7° @ 10,436', 7-3/4° @ 10,485', 6° @ 10,587', 5-3/4° @ 10,678', 5-1/4° @ 10,776'.
12/7/82	10831	Day-117 (51') - Drlg. (7-5/8 @ 10,278) MW: 8.7# Vis: 47 Pv/Yp: 20/9 Drld & surveyed to PD. Surveys: 6° S28W @ 10,480', 5-1/4° S30W @ 10,786'.
12/8/82	10968	Day-118 (137') - Drlg. (7-5/8 @ 10,278) MW: 8.7# Vis: 60 Pv/Yp: 32/26 Drld to PD. Survey: 5° S34W @ 10,856'.
12/9/82	11061	Day-119 (93') - Bit trip. (7-5/8 @ 10,278) MW: 8.6# Vis: 47 Pv/Yp: 17/6 Drld to PD & POH f/bit. Survey: 5° S34W @ 10,985'.
12/10/82	11170	Day-120 (109') - Drlg. (7-5/8 @ 10,278) MW: 8.7# Vis: 52 Pv/Yp: 26/11 FOH w/plugged bit. CO black mud material. RIH & drld to PD.
12/11-13/82	11440	Day-123 (270') - Running Csg Insp Log. (7-5/8 @ 10,278) MW: 8.8# Vis: 61 Pv/Yp: 23/16 Drld to 11,172' and lost 1100 psi pump press. Checked surface equip, POH looking for W0. LD 2 jts 3-1/2" "E" 15.50# DP's (both pin & box washed out), and changed out Daily Jar (broken seal). RIH and drld to PD, PI 60 bbls 75 vis sweep & POH. Hole is in good cond. Surveys: 5-1/2° S34W @ 11,142', 6-1/4° S34W @ 11,234', 5-1/2° S34W @ 11,392'.

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11/25- 10290  
29/82  
Day-109 (5') - Prep to run leak-off tst. (7-5/8 @ 10,278)  
MW: 8.7# Vis: 41 Pv/Yp: 15/11  
RIH to 10,285', wshd 39' to btm. Circ hole cln & POH & LD DP. Chg'd to 7-5/8" csg rams & ran 109 jts 7-5/8", 44.67#, S00-90 FL4S & 147 jts 7-5/8", 29.7#, S-95, LTC csg w/shoe @ 10,278', FC @ 10,197' & DV @ 7500'. Howco cmtd w/1100 sx 50/50 Poz + 12.5#/sx Gilsonite + 1/4#/sx Flocele mixed @ 13.2 ppg; foll'd by 200 sx C1 "H" + 18% salt + 1/4#/sx Flocele + .75% CFR-2 mixed @ 16.7 ppg. Displ'd w/full returns & bmpd plug w/3000 psi, flt held OK. CIP @ 1215 hrs 11/27/82. Opnd DV tool & circ'd 7-5/8" x 10-3/4" annulus rec'g 5 bbls cmt. Circ & WOC f/6 hrs. Closed 7-5/8" rams & tstd 7-5/8" x 10-3/4" annulus to 850 psi, OK. Cmtd 2nd stage w/450 sx C1 "H" + 0.75% CFR-2 mixed @ 15.6 ppg. Displ'd & bmpd plug w/2M psi. Closed stage clr & rel'd press. ND BOPs & set slips w/300M# tension, instl'd 11" 5M# x 7-1/16" 5M# tbg spool & tstd flange to 2500 psi. NU BOPs, tstd rams to 5M psi & Hydril to 3500 psi using tst plug. RIH PU 4-3/8" DCs & 3-1/2" DP to the stage clr. Circ hole cln & tstd csg to 3500 psi. Drld stage clr & cont GIH PU 3-1/2" DP, tagged FC @ 10,197' & tstd csg to 3500 psi. Drld FC & cmt to 10,272' & retstd csg to 3500 psi. Drld shoe & new fm to 10,290'. Circ hole cln & ready to run leak-off tst.

11/30/82 10320  
Day-110 (30') - Coring. (7-5/8 @ 10,278)  
MW: 8.7# Vis: 43 Pv/Yp: 14/9  
Tstd csg shoe to leak-off @ 12.7 ppg EMW. POH. RIH w/ 4-3/4" CB & cored to PD @ avg ROP of 6 FPH.

12/1/82 10308  
Day-111 (corr'd to core recovery) (0') - TOH f/DST. (7-5/8 @ 10,278)  
MW: 8.7# Vis: 52 Pv/Yp: 15/11  
Make conn & wsh CB to btm. Attempt cont coring - CB jammed - press up w/CB on btm. TOH w/CB & rec'd 16' core. Make up B#24 & TIH. Circ & cond & POH f/DST.

12/2/82 10308  
Day-112 (0') - PU 6-1/4" bit. (7-5/8 @ 10,278)  
MW: 8.7# Vis: 49 Pv/Yp: 14/11  
FOH w/bit. Howco ran DST #2 w/pkr set @ 10,233'. Sml blw in IF, 60 min ISI, 120 min IF - sli blw f/2 min & decr'd to 0. FSI f/120 min. Est BHP @ 4699 psi & BHT @ 182°F. Unsuccessfully attempted to rev circ. POH & found mud level @ 7725' & rev'd sub plugged. LD DST & PU BHAs. Smple chmbr full of fm wtr (800 ppm chlorides) & no gas.

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11/16/82	9980	Day-96 (235') - Drlg (10-3/4 @ 7742) MW: 8.7+ $\frac{1}{2}$ Vis: 39 Pv/Yp: 10/8 Drld to PD w/960 cfm air & 920 psi dn parasite string. Surveys: 3-3/4° @ 9714', 4° @ 9898'. Lost 86 BM in 24 hrs.
11/17/82	9981	Day-97 (1') - Wsh & rm to btm. (10-3/4 @ 7742) MW: 8.7 $\frac{1}{2}$ Vis: 44 Pv/Yp: 20/10 Drld to PD. TOH. Cln pits, magnaflux BHA & TIH. Drlg w/960 cfm air @ 950 psi dn para string. Lost 100 BM on trip.
11/18/82	10066	Day-98 (85') - Drlg. (10-3/4 @ 7742) MW: 8.7 $\frac{1}{2}$ Vis: 41 Pv/Yp: 14/7 Drld to PD w/trip to find W0 in DP. No mud loss in prev 24 hrs. Drlg w/960 cfm air @ 860 psi dn para string.
11/19/82	10208	Day-99 (142') - Spt LCM pill f/bit trip. (10-3/4 @ 7742) MW: 8.7 $\frac{1}{2}$ Vis: 44 Pv/Yp: 14/11 Drld & surv'd to PD. Mix & spt 80 bbl LCM pill on btm f/bit trip. Drlg w/960 cfm air & 860 psi dn parasite string. No mud loss 24 hrs. Surveys: 4-1/4° @ 10,026' & 10,120'. Dialog on loc f/csg cal log.
11/20-22/82	10285	Day-102 (77') - Circ to log. (10-3/4 @ 7742) MW: 8.7+ $\frac{1}{2}$ Vis: 44 Pv/Yp: 18/14 POH. Ran Dia-log csg inspection caliper. RIH. Lost 120 BM on trip. Drld to 10,285'. Circ samples. POH. PU CB. RIH. Could not wrk core hd bit past 7094'. Tite, possible collapsed csg. RIH w/bit. Drag thru csg @ 7094'. TIH to 10,285'. Circ.
11/23/82	10285	Day-103 (0') - Logging. (10-3/4 @ 7742) MW: 8.7 $\frac{1}{2}$ Vis: 46 Pv/Yp: 19/14 Circ & cond f/logging. POH. Run DIL/GR, CEL, FDC/CNL/GR.
11/24/82	10285	Day-104 (0') - Circ & W0 csg. (10-3/4 @ 7742) MW: 8.7 $\frac{1}{2}$ Vis: 43 Pv/Yp: 14/10 Fin rng BHC Sonic & Dipmeter log. TIH w/bit. Circ @ 10,285'. POH to 6900'. Circ.

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11/4/82	7777	Day-84 (10') - PU BHA. (10-3/4 @ 7742) Mixing new LSND mud. Drld cmt to 7650' & tstd csg to 2500 psi w/9.2 ppg mud. Drld FC & cmt to 7740' & retstd csg to 2500 psi. Drld shoe & 10' new fm & tstd shoe to leak-off @ 10.4 ppg EMW. PU 4 stds, displ'd hole w/fresh wtr & POH. Schl ran CBL/CCL/VDL/GR f/TD to TOC @ 6800' & f/2704' to surf. PU new BHA & mixing mud.
11/5/82	8005	Day-85 (228') - Drlg. (10-3/4 @ 7742) MW: 8.6# Vis: 33 Pv/Yp: 3/2 FIH w/BHA, cleared para string w/2200# psi w/rig pmp. Drld to PD. Note: Para string @ 2455', pmpg 500 CFM air @ 780 psi.
11/6- 8/82	8383	Day-88 (378') - TIH w/B#17. (10-3/4 @ 7742) MW: 8.8# Vis: 41 Pv/Yp: 19/9 Drld to 8247' & POH f/bit. Dialog ran csg inspection log (base-log). RIH & drld to PD. POH & chg'g to pack-off BHA. Surveys: 3-1/2° @ 8026', 3° @ 8247', 1° @ 8301', 2° @ 8364'.
1/9/82	8507	Day-89 (124') - Drlg. (10-3/4 @ 7742) MW: 8.7# Vis: 40 Pv/Yp: 25/13 Fin TIH w/B#17. Strt rmg to btm - took 130 bbls to brk circ & ran out of mud. TOH to csg & mix mud. TIH. Spt 80 bbls LCM pill @ 8230' - 27 sx mica & 10 sx Kwikseal. Brk circ. Wsh & rm to 8383'. Drld & surveyed to PD - drlg w/960 cfm air & 920# dn par string. Survey: 3° @ 8439'.
11/10/82	8656	Day-90 (149') - Trip f/bit (10-3/4 @ 7742) MW: 8.7# Vis: 43 Pv/Yp: 24/16 Drld & surv to PD. Mix & spot 80 bbl LCM pill on btm - 25 sx mica & 10 sx fine Quickseal. TOH f/B#18. Drlg w/960 cfm air & 920# dn par strg. Lost 80 bbls mud on conns & survey. Survey: 3° @ 8596'.
1/11- 12/82	9150	Day-92 (494') - Drlg (10-3/4 @ 7742) MW: 8.7# Vis: 41 Pv/Yp: 16/12 Drld to PD w/960 cfm @ 920 psi thru parasite string. Survey: 3-1/2° @ 8816' & 3° @ 9065'.
1/13- 15/82	9745	Day-95 (595') - Drlg (10-3/4 @ 7742) MW: 8.7# Vis: 41 Pv/Yp: 11/8 Drld to PD w/bit trip @ 9381'. Surveys: 2-3/4° @ 9343'. 960 cfm @ 920 psi thru parasite string. Lost 50 BM in last 24 hrs.

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10/27/82 7747 Day-75 (10') - Logging. (16 @ 2503)  
MW: 9.6# Vis: 39 Pv/Yp: 7/3  
Drld 10' & circ btms up f/sample. Schl ran DLL/MSFL/SP/GR-Calip &  
FDC/CNL/GR-Calip.

10/28/82 7767 Day-76 (20') - POH to run csg. (16 @ 2503)  
MW: 9.7# Vis: 41 Pv/Yp: 7/3  
Schl fin logging BHCS/GR & HDT/Calip. RIH & drld to PD, circ btms up  
f/samples to confirm Navajo fm. Made 10 std sht trip. Circ & cond hole,  
and POH.

10/29/82 7767 Day-77 (0') - Prep to run 10-3/4" csg. (16 @ 2503)  
MW: 9.7# Vis: 38 Pv/Yp: 6/3  
POH & LD BHA. RIH w/bit. Tagged 25' fill on btm & circ hole cln. POH. Chgd  
rams & RU csg crew.

10/30- 7767 Day-81 (Corr'd) (0') - NU 13-5/8" BOP (10-3/4 @ 7742)  
11/1/82 MW: 9.6# Vis: 38 Pv/Yp: 6/3  
Ran total 187 jts 10-3/4" csg w/ 1.9" parasite string (55.5# L-80  
f/7742-7339'; 60.7#, S-95 f/7339-6376'; 55.5#, L-80 f/6376-2986'; & 51.0#,  
L-80 f/2986' to surf). Stuck csg while circ w/shoe @ 7742', FC @ 7652' &  
DV clr @ 2704'. Howco cmt'd 1st stage w/1200 sx 50/50 Poz + 4% gel + 18%  
salt, foll'd by 1080 sx Cl "H" + 18% salt + 1/4#/sx Flocele w/full  
returns. No incr of pmp press was noticed, did not bmp plug & over-displ  
by 10 bbls. Opnd DV tool & cmt'd 2nd stage w/1677 sx 50/50 Poz + 2% gel +  
1/4#/sx Flocele. Cmt circ'd to surf & bmpd plug w/2000 psi. CIP @ 2030 hrs  
10/30/82. WOC. Instl'd csg slips, ND 20" BOPs & NU 11" BOPs.

11/2/82 7767 Day-82 (0') - NU BOP to retst. (10-3/4 @ 7742)  
Fin NU 13-5/8" 5000# BOP & failed to tst. Identified failure  
f/deteriorated mud cross. WO same & strt'd NU to tst.

11/3/82 7767 Day-83 (0') - Drlg cmt. (10-3/4 @ 7742)  
MW: 8.8# Vis: 36 Pv/Yp: 7/3  
NU BOPs & tstd OK. RIH w/bit on slick BHA. Tagged TOC @ 2682' & drld cmt &  
DV @ 2704'. Cont in hole. Tagged TOC @ 6797' (855' above the flt) & drld  
cmt @ 7100'. Note: Performed Top job in 10-3/4" x 16" annulus w/55 sx Cl  
"H" + 3% CaCl<sub>2</sub>.

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10/16- 18/82	6570	Day-66 (395') - Drlg. (16 @ 2503) MW: 9.0# Vis: 49 Pv/Yp: 20/19 Drld to PD w/drlg brks @ 6467-6473' & 6540-6548'. Circ btms up both drlg brks; no show. Surveys: 4-1/4° @ 6215', 5-1/4° @ 6284', 4° @ 6341', 3-1/2° @ 6409', 2-1/2° @ 6495'.
10/19/82	6734	Day-67 (164') - Drlg. (16 @ 2503) MW: 8.8# Vis: 52 Pv/Yp: 21/20 Drld to 6548', gas incr'd to 200+ units. Circ 2-1/2 hrs & gas decr'd to normal. Drld & surveyed to PD. Surveys: 3° @ 6588', 3-1/4° @ 6688'.
10/20/82	7000	Day-68 (266') - Drlg. (16 @ 2503) MW: 9.0# Vis: 49 Pv/Yp: 11/21 Drld to PD. Survey: 2-1/2° @ 6806' & 3° @ 6970'.
10/21/82	7220	Day-69 (220') - Drlg. (16 @ 2503) MW: 9.1# Vis: 48 Pv/Yp: 13/17 Drld to PD. Survey: 2° @ 7152'.
10/22/82	7321	Day-70 (101') - Drlg. (16 @ 2503) MW: 9.4# Vis: 45 Pv/Yp: 11/12 Chl: 80,000 Drld. TOH f/WO & find same. Drld to PD.
10/23- 25/82	7724	Day-73 (403') - Bldg pit vol. (16 @ 2503) MW: 9.1# Vis: 34 Pv/Yp: 2/2 Drld to 7416' & lost returns. Mixed LCM & drld ahead to PD. Lost returns again while circ btms up f/sample. Wrkd tite hole @ 6904'. PU 20 stds & bldg pit vol while circ w/100% returns. (Total loss of ±925 bbls). Survey: 2° @ 7500'.
10/26/82	7737	Day-74 (13') - Circ f/logs. (16 @ 2503) MW: 9.5# Vis: 39 Pv/Yp: 7/3 Fin bldg pit vol & staged in hole by 3 stds at a time circ'g 30 min. Drld to PD & circ btms up f/sample to verify the Navajo fm. Made sht trip & circ f/logs.

DIXIE UNIT #2  
SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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10/5/82	5093	Day-53 (150') - Drlg. (16 @ 2503) MW: 9.0# Vis: 46 Pv/Yp: 19/12 Drld to PD. Survey: 3° @ 5002'.
10/6/82	5194	Day-54 (101') - Drlg. (16 @ 2503) MW: 9.1# Vis: 48 Pv/Yp: 20/14 Drld & surveyed to 5154'. TFB #8, chk DP tool jts f/OD & chk BOPs. TIH, wsh & rm 5074-5154'. Drld to PD. Survey: 3-1/4° @ 5100'.
10/7/82	5402	Day-55 (208') - Drlg. (16 @ 2503) MW: 9.1# Vis: 45 Pv/Yp: 20/12 Drld & surveyed to PD. Surveys: 3-1/4° @ 5195', 3° @ 5350'.
0/8/82	5530	Day-56 (128') - Drlg. (16 @ 2503) MW: 9.0# Vis: 45 Pv/Yp: 15/10 Drld to 5429' & POH f/WO. Found WO in DP (slip area), chgd bit. RIH & drld to PD. Survey: 2° @ 5476'.
10/9- 11/82	5764	Day-59 (234') - Drlg. (16 @ 2503) MW: 8.9# Vis: 50 Pv/Yp: 21/17 Drld to 5648' w/drlg brk 5600-5648'. Circ btms up gas f/1 unit to 125 units. Unsuccessfully attempted to run DST #1 @ interval of 5595-5648' due to the failure of inflatable pkr. RIH w/new BHA & drld to PD. Surveys: 2° @ 5590', 2-1/4° @ 5730'.
10/12/82	5930	Day-60 (166') - Drlg. (16 @ 2503) MW: 9.0# Vis: 50 Pv/Yp: 22/20 Drld & surveyed to PD. Survey: 3° @ 5885'.
10/13/82	6051	Day-61 (121') - Drlg. (16 @ 2503) MW: 9.0# Vis: 51 Pv/Yp: 23/19 Drld to PD. Survey: 4° @ 6010'.
10/14/82	6155	Day-62 (104') - Drlg. (16 @ 2503) MW: 9.0# Vis: 51 Pv/Yp: 10/15 Drld to PD. Survey: 3-1/2° @ 6080', 4° @ 6140'.
10/15/82	6175	Day-63 (20') - Drlg. (16 @ 2503) MW: 9.0# Vis: 55 Pv/Yp: 21/15 POH due to problem w/generator. Tstd BOPs & chgd BHA. RIH & drld to PD.



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Garfield County, Utah

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9/23/82	3635	Day-39. (119') - Drlg. (16 @ 2503) MW: 9.1# Vis: 48 Pv/Yp: 20/20 Drld to PD.
9/24/82	3803	Day-42 (corr'd) (168') - Drlg. (16 @ 2503) MW: 9.1# Vis: 44 Pv/Yp: 16/15 Drld & surveyed to PD. Surveys: 1-3/4° @ 3590', 2-3/4° @ 3715'.
9/25- 27/82	4216	Day-45 (413') - Drlg. (16 @ 2503) MW: 9.2# Vis: 50 Pv/Yp: 21/22 Drld & surveyed. TFB #6 @ 3995', chg out BHA & mech chk'd BOPs. Drld & surveyed to PD. Surveys: 1-3/4° @ 3844' & 3995', 3° @ 4085'.
9/28/82	4282	Day-46 (66') - Drlg. (16 @ 2503) MW: 9.1# Vis: 45 Pv/Yp: 18/14 Drld & surveyed to 4260'. POH into 16" csg, SD & repair gen. TIH to btm & drld to PD. Surveys: 3° @ 4180', 2-1/2° @ 4242'.
9/29/82	4329	Day-47 (47') - Drlg. (16 @ 2503) MW: 9.1# Vis: 45 Pv/Yp: 20/12 Drld to 4321', POH & chk BHA & chgd jets. RIH & drld to PD.
9/30/82	4407	Day-48 (78') - Drlg. (16 @ 2503) MW: 9.1# Vis: 48 Pv/Yp: 21/19 Drld to PD. Survey: 2-1/4° @ 4373'.
10/1/82	4564	Day-49 (157') - Drlg. (16 @ 2503) MW: 9.1# Vis: 46 Pv/Yp: 21/16 Drld to PD. Survey: 2° @ 4443'.
10/2- 4/82	4943	Day-52 (379') - Drlg. (16 @ 2503) MW: 9.1# Vis: 49 Pv/Yp: 22/18 Drld & surveyed to 4927'. POH inspecting BHA & changed as required. RIH & drld to PD. NOTE: Lost 50 bbls mud @ 4900' while drlg, ran saw-dust sweep & regained 100% returns. Surveys: 1-1/2° @ 4563', 2-3/4° @ 4687' & 4156', 2-1/2° @ 4845', 2-1/4° @ 4882'.

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SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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9/11- 2514 13/82	Day-31. H0: 2510' (285') - WOC. (16 @ 2503) MW: 9.2# Vis: 50 Pv/Yp: 25/20 Cont'd opng hole to PD. Circ & cond f/csg. Run 16" csg as foll: 35 jts 84#, K-55, BTC & 24 jts 65#, H-40, BTC & 2 jts 84#, K-55, BTC. Landed @ 2503' w/FC @ 2458'. Cmt'd 16" csg thru DP & stab-in FC w/2000 sx Lite w/12.5# Gilsonite, 3% CaCl <sub>2</sub> ; foll'd by 600 sx Cl "H" w/2% CaCl <sub>2</sub> . Full returns thruout cmtg, cmt to surf after 2000 sx lead. FC did not hold, SI & hold press on DP while WOC.
9/14/82 2510	Day-32. (0') - NU BOPs. (16 @ 2503) MW: 9.1# Vis: 50 Pv/Yp: 25/20 POH w/DP; 5 jts plugged w/cmt. Cut csg & welded on csghd. Tstd weld to 400 psi.
9/15/82 2510	Day-33. (0') - PU BHA inspecting DC's MW: 9.1# Vis: 46 Pv/Yp: 17/8 NU BOP's and tested.
9/16/82 2560	Day-34. (50') - Drlg. (16 @ 2503) MW: 8.8# Vis: 42 Pv/Yp: 10/5 FIH inspecting slick BHA. Drld FC @ 2456' & 15' cmt, and tstd csg to 1000 psi. Drld shoe & to 2545', POH. Chgd to stabilized BHA. RIH & drld to PD.
9/17/82 2763	Day-36 (corr'd). (203') - Drlg. (16 @ 2503) MW: 8.9# Vis: 45 Pv/Yp: 19/14 Drd to PD.
9/18- 3131 20/82	Day-36. (368') - Drlg. (16 @ 2503) MW: 8.9# Vis: 43 Pv/Yp: 16/15 Drd to PD w/bit trip @ 3101'. Surveys: 1-3/4° @ 2744', 1-1/2° @ 2933', 1-3/4° @ 3058'.
9/21/82 3368	Day-37. (237') - Drlg. (16 @ 2503) MW: 9.1# Vis: 49 Pv/Yp: 14/30 Drd to PD. Survey: 2-3/4° @ 3249'.
9/22/82 3516	Day-38. (148') - Drlg. (16 @ 2503) MW: 9.1# Vis: 50 Pv/Yp: 13/32 Drd & surveyed to PD. Surveys: 2° @ 3344' & 2-3/4° @ 3469'.

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8/29/82	1947	Day-17, Ftg-202. Trip to chg BHA. Mud: 8.9#, vis 43, WL 22. Drld & surveyed (100% returns). Trip to chg BHA - free coming out. 1-1/4° @ 1878', 2° @ 1941'.
8/30/82	2109 (corr'd)	Day-18, Ftg-189. Drlg 14-3/4" hole. Mud: 9.1#, vis 42, WL 18. RIH. Stuck @ 1789'. Wrk free. Rmd 1789-1920' (corr f/1947'). Rmd 133'. Drld & surveyed. 1-3/4° @ 2025'.
8/31/82	2327	Day-19, Ftg-218. Drlg 14-3/4" hole. Mud: 9.2#, vis 44, WL 16.0. Drld & surveyed. 1-1/4° @ 2150', 1-3/4° @ 2276'.
9/1/82	2497	Day-20, Ftg-170. Drlg 14-3/4" hole. Mud: 9.1#, vis 44, WL 17. Drld & surveyed. 1-1/2° @ 2403'.
9/2/82	2514	Day-21                      PU 22" H0.                      (26 @ 135) MW: 9.1      Vis: 45      Pv/Yp: 20/10 Drld to PD & POH. LD 14-3/4" BHA. Instl'd 26" wellhd system & PU 22" H0.
9/3/82	2514	Day-22                      opng 14-3/4" hole to 22".      (26 @ 135) MW: 8.9#      Vis: 45      Pv/Yp: 15/5 Opng 14-3/4" hole to 22" @ avg ROP 12.2
9/4-7/82	2514	Day-26.                      (1159') - Opng 14-3/4" hole to 22". (26 @ 135) MW: 9.2#      Vis: 61      Pv/Yp: 28/21 Opnd 14-3/4" hole to 22" to PD w/trip @ 830'. Avg ROP @ 12.3'/hr.
9/8/82	2514	Day-27.      H0: 1800' (358') - Opng 14-3/4" hole to 22". (26 @ 135) MW: 9.2#      Vis: 68      Pv/Yp: 32/23 Cont'd opng hole to PD.
9/9/82	2514	Day-28.      H0: 2106' (306') - Opng 14-3/4" hole to 22". (26 @ 135) MW: 9.1#      Vis: 67      Pv/Yp: 30/24 Cont'd opng hole to PD.
9/10/82	2514	Day-29.      H0: 2225' (119') - Opng 14-3/4" hole to 22". (26 @ 135) MW: 9.2#      Vis: 61      Pv/Yp: 28/20 Cont'd opng hole to PD.

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8/21/82 733 Day-9, Ftg-260. Drlg volcanics. Mud: 8.9#, vis 45, WL NC. Repack swivel. Drld. Circ & survey. Drlg - losing partial returns. 3/4° @ 552'.

8/22/82 957 Day-10, Ftg-224. Mixing LCM. Mud: 8.8#, vis 37, WL NC. Drld. Circ & survey. Drld. Rig service. Drlg - lost about 400 bbls @ 895'. Circ & survey. Drlg - lost compl returns @ 957'. Mixed & pmpd 400 bbls 25% LCM w/o returns. POH 2 stds. Mixing LCM - fiber & sawbust - hole stdg full @ flw nple. 1/4° @ 735' & 893'.

8/23/82 1090 Day-11, Ftg-133. Drlg. Mud: 8.8#, vis 50, WL 15. No returns. Mix LCM to 30% & bld vol. TI to btm 3 stds. Pmp LCM pill. Regain 75% returns. Drld ahead w/reduced pmp press. Regain full returns. Drlg ahead w/mud loss as foll: 50 bbls @ 1041' in 15 min; 24 hrs lost approx 1300 bbls, shaker by-passed. Dump pits & jet as nec. Drlg smoother, less torque. 1/2° @ 1100'.

8/24/82 1283 Day-12, Ftg-193. Rng survey. Mud: 8.8#, vis 93, WL 15. Drld, losing mud @ 30 BPH. Survey. Drld w/full ret. Rig service. Drld w/full ret. PU pmp rate f/40 to 50 SPM. Survey. Vy little mud loss. 1/2° @ 1050', 3/4° @ 1238'.

8/25/82 1455 Day-13, Ftg-172. Drlg. Mud: 8.8#, vis 45, WL 23.0. Drld. Lost returns @ 1364', took 35 bbls. Reduce pmp press, regained circ. Pmpd LCM pill sweep while drlg. Lost 150 bbls total in 24 hrs. Drlg in volcanics.

8/26/82 1621 Day-14, Ftg-166. Drlg. Mud: 8.9#, vis 64, WL 28. Drld. Survey. Drld. TOH slow. Chg bit & run 1 std DC. Cut drlg line & service rig. TIH slow to 1450'. Wsh 30' to btm @ 1484'. Drld. No mud loss on trip. 50 bbl loss to seepage in 24 hrs. Drlg volcanics, tr Bentonite, tr LS. 1° @ 1427'.

8/27/82 1709 Day-15, Ftg-88. Fshg, PU OS. Mud: 8.9#, vis 41, WL 32. Drld. Survey. Drld. Lost 75% ret @ 1692', 100 bbls loss. Mix LCM pill, service rig & CO pmp valves. Drld w/400 psi pmp press, regained full ret. Drlg 600 psi on pmps. Lost 70 M# wt, chain out, pin brk between last jt HWDP & X0, fsh depth @ 1369'. LD bad jt, PU bit & bit sub. TIH, bridge @ 140', wrk thru & fin TIH to 1365'. Circ on top fsh & WO fshg tools. TOH. PU OS w/extension, 8" grapple, bmpr sub & jars. Drlg in sandstone, volcanics, bentonite & LS. 0° @ 1610'.

8/28/82 1745 Day-16, Ftg-36. Drlg 14-3/4" hole. Mud: 8.8#, vis 46, WL 22. Fin PU fshg tools - 11-3/4" OS w/8" grapple, B sub jars. WIH w/fshg tools. Circ & wrk over fsh @ 1366'. Chain out w/fsh, re'c all of fsh 343'. Brk dn & load out fshg tools. Inspect all BHA connections, including HWDP. TI, PU 2 - 8" DC, 3 - 7" DC. LD 5 jts DP. Wsh 5' fill to btm. Drlg 14-3/4" hole w/100% returns. Drlg 100% volcanics.

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SW SW Section 2-33S-4-1/2W  
Garfield County, Utah

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8/13/82	150	Day-1, Ftg-150. Opng hole to 32". Mud: 8.8#, vis 70, WL NC. SPUD 6:30 am 8/12/82. Tag cmt @ 102'. Drld 4' cmt & 43' new hole. Circ & cond hole. POH. LD 22" HO. Cut conductor f/32" HO. PU 32" HO. Weld straps on. Weld 32' cond back together. RIH. LD 1 - 9" DC. Opn hole f/102-139'.
8/14/82	150	Day-2, Ftg-0. WOC. Mud: 8.8#, vis 70, WL NC. Opnd hole to 32" to 150'. POH w/HO. LD HO & cut cond pipe. RU & run (139.48') 4 jts 26" OD, 102.68# csg - stopped on ledge @ 135' RKB. Unable to wrk by. Cmt w/350 sx Cl "B" cmt w/2% Cl "B" cmt, slurry wt 14.8#. JC 10:30 pm. Cmt circ to within 2' of surf. Displ'd cmt dn.
8/15/82	150	Day-3, Ftg-0. Welding flwline. WOC. Cut off 26" csg. NU. Weld on csg flange 24" 2000 psi w/ID 21-1/4" (Gene Mea). Inst Hydril on top of csg flange. Swaged dn 26" to 24" w/welder to NU csg flange.
8/16/82	150	Day-4, Ftg-0. WO cmtrs & cmt. NU flwline & diverter line. Made up BHA & TIH. Tst hydril & 26" csg - 150#. Csg circ'd up backside. PU 2 jts DP & tag cmt (or btm) @ 134.5' RKB. WO cmtrs & cmt to recmt conductor pipe.
8/17/82	150	Day-5, Ftg-0. Prep to drill cmt. WO cmtrs. RU cmtrs. WO XO sub to 2". Set DP @ 93' RKB. Mix 200 sx Cl "B" cmt w/2% CaCl <sub>2</sub> & pmpd dn DP w/hydril closed. Displ'd w/31 BW. Complete @ 1600 hrs. Hole on vac. TOH w/DP. WOC. Chk FL @ 1800 hrs - FL @ 76' RKB; 1900 hrs - FL @ 77' RKB. RIH w/DP to 110' RKB. Mix 200 sx Cl "B" cmt w/2% CaCl <sub>2</sub> & pmpd dn. DP landed @ 110' RKB. Displ'd w/1 BW - hydril opn. Wtr & mud came up & filled cellar - est vol 50 bbls. TOH w/DP. WOC & cut drlg line.
8/18/82	162	Day-6, Ftg-12. Drlg 14-3/4" hole. DO cmt in BOP stack. Pull drlg nple, CO cmt out of Hydril & flwlines. Re NU. PU 17-1/2" bit. Drld cmt 30-125'. Press tst Hydril to 200 psi - held OK. Drld cmt w/ 17-1/2" bit to 137'. POH. PU 14-3/4" bit. chk f/flw or loss of mud in hole - held OK. TIH. Drld cmt 137-150' / Drlg fm 150-162'. Note: Wtr well drld to 200'. Ran 6" ID PVC pipe, slotted f/wtr entry. Run to 200' & gravel packed. Bailed out mud. RU air comp & blow well f/cln up & tst. Tst @ 60 GPM w/air. Static FL @ 100'. Plan to run submersible pmp on 8/18/82 (used 40 GPM pmp). Will have electrician onsite to wire in pmp.
8/19/82	279	Day-7, Ftg-117. Drlg. Mud: 8.8#, vis 53, WL NC. Drld 14-3/4" hole. LD 2 jts 5" HWDP & PU 3 - 9" DCs. Drlg.
8/20/82	473	Day-8, Ftg-194. Repack swivel. Mud: 8.8#, vis 65, WL NC. Drld & surveyed. Rig service. Drld. TOH f/SS @ 401'. PU SS & TIH. Drld & surveyed. Drld. Repack swivel. 1° @ 271', 1/2° @ 374'.

ARCO Oil and Gas Company  
Rocky Mountain District  
717-17th Street  
Mailing address: P.O. Box 5540  
Denver, Colorado 80217  
Telephone 303 575 7000



March 21, 1983

Bureau of Land Management  
Oil and Gas Division  
1745 W. 1700 S  
Ste 2000  
Salt Lake City, Utah 84104

RE: Dixie Unit #2 Well  
SW SE Section 2-33S-4-1/2W  
Garfield County, Utah

Gentlemen:

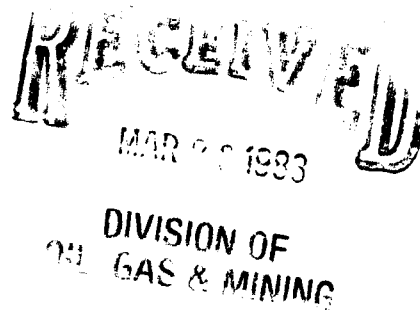
Enclosed please find FINAL PRINTS of logs run on the  
above referenced well. FORM 9-330 WELL COMPLETION  
was sent to your office on March 7, 1983.

Very truly yours,

K. L. Flinn  
Operations Information Assistant

Encl.

cc: Utah Division of Oil, Gas & Mining



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CORE ANALYSIS RESULTS

for

ARCO EXPLORATION COMPANY

DIXIE UNIT NO. 2 WELL  
WILDCAT  
GARFIELD COUNTY, UTAH

RECEIVED

MAR 23 1983

DIVISION OF  
OIL GAS & MINING

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

PAGE 1

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2  
WILDCAT  
GARFIELD COUNTY, UTAH

DATE : 12-1-82  
FORMATION : SHINARUMP  
DRLG. FLUID: WBM  
LOCATION : SE SW SEC. 2 T33S R45W

FILE NO : 3807-0024  
ANALYSTS : R. MOHL  
ELEVATION: 7342 GL

CONVENTIONAL ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM K <sub>a</sub> MAXIMUM	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
1	10304.0-05.0	0.20	4.9	0.0	69.7	2.67	SD FN-MED CLY SHLY
2	10305.0-06.0	0.23	8.0	0.0	78.3	2.68	SD FN-MED CLY GLAUC
3	10306.0-07.0	0.53	9.0	0.0	80.7	2.67	SD FN-MFD CLY SHLY
4	10307.0-08.0	0.42	6.5	0.0	75.6	2.68	SD FN-MED CLY SHLY GLAUC
5	10308.0-09.0	0.54	7.2	0.0	69.6	2.67	SD FN-MED CLY SHLY
6	10309.0-10.0	0.47	6.4	0.0	69.6	2.67	SD FN-MED CLY SHLY
7	10310.0-11.0	0.28	6.7	0.0	67.4	2.67	SD FN-MED CLY SHLY
8	10311.0-12.0	0.36	5.4	0.0	69.2	2.66	SD FN-MED CLY SHLY SL/PYR
9	10312.0-13.0	0.81	8.0	0.0	75.1	2.69	SD MED-CSF CLY SHLY FYR
10	10313.0-14.0	0.49	7.3	0.0	71.2	2.67	SD MED-CSE CLY SHLY
11	10314.0-15.0	0.39	7.3	0.0	70.1	2.66	SD MED-CSE CLY
12	10315.0-16.0	0.57	7.6	0.0	70.3	2.65	SD MED-CSE CLY
13	10316.0-17.0	0.10	7.2	0.0	82.3	2.65	SD VFG CLY
14	10317.0-18.0	0.07	6.9	0.0	73.7	2.67	SD VFG CLY MICA
15	10318.0-19.0	0.09	6.8	0.0	80.0	2.67	SD VFG CLY MICA
16	10319.0-20.0	0.13	7.3	0.0	76.9	2.67	CVF SD VFG CLY

CVF=CLOSED VERTICAL FRACTURE



**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

PAGE 1

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2  
WILDCAT  
GARFIELD COUNTY, UTAH

DATE : 12-20-82  
FORMATION : SINBAD  
DRLG. FLUID: WBM  
LOCATION : SE SW SEC. 2 T33S R45W

FILE NO : 3807-0024  
ANALYSTS : R. MOHL  
ELEVATION: 7342 GL

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION			
17	11865.0-66.0	0.01	0.01	1.0	13.7	27.4	2.72	LM VF/XLN	FOSS	SCAT	VUGS
18	11866.0-67.0	0.01	0.01	0.5	0.0	71.6	2.72	LM VF/XLN			
19	11867.0-68.0	<0.01	<0.01	0.3	16.1	64.5	2.73	LM VF/XLN	FOSS		
20	11868.0-69.0	<0.01	*	0.4	0.0	62.9	2.78	LM VF/XLN	FOSS	DOLO	
21	11869.0-70.0	<0.01	*	0.2	0.0	91.1	2.75	LM VF/XLN	FOSS	DOLO	SCAT PYR
22	11870.0-71.0	<0.01	*	0.6	24.5	48.9	2.72	LM VF/XLN	FOSS	STYO	
23	11871.0-72.0	0.01	0.01	0.5	0.0	81.7	2.74	LM VF/XLN	FOSS		
24	11872.0-73.0	0.01	0.01	0.4	0.0	51.3	2.74	CVF LM FN/XLN	FOSS		
25	11873.0-74.0	0.02	0.01	0.6	0.0	84.9	2.75	LM VF/XLN	FOSS	DOLO	
26	11874.0-75.0	0.01	0.01	0.7	9.8	78.4	2.75	LM VF/XLN	FOSS	SLI DOLO	
27	11875.0-76.0	0.01	0.01	0.6	0.0	66.0	2.76	LM VF/XLN	FOSS	SLI DOLO	
28	11876.0-77.0	<0.01	*	0.7	0.0	68.4	2.74	LM VF/XLN	FOSS	SLI DOLO	
29	11877.0-78.0	<0.01	*	0.9	0.0	83.4	2.76	OVF LM VF/XLN	FOSS	SLI DOLO	
30	11878.0-79.0	0.01	0.01	1.0	0.0	88.8	2.78	LM VF/XLN	FOSS	SCAT PYR	
31	11879.0-80.0	0.01	<0.01	0.7	16.1	64.6	2.78	CVF LM VF/XLN	FOSS	SCAT PYR	
32	11880.0-81.0	<0.01	<0.01	0.4	34.5	34.5	2.73	CVF LM VF/XLN	FOSS		
33	11881.0-82.0	0.01	0.01	0.9	0.0	32.9	2.75	CVF LM VF/XLN	FOSS		
34	11882.0-83.0	0.37	*	0.6	0.0	82.6	2.73	OVF LM VF/XLN	FOSS	STYO	
35	11883.0-84.0	0.01	0.01	0.6	0.0	47.0	2.73	LM VF/XLN	FOSS	STYO	
36	11884.0-85.0	0.62	*	0.5	0.0	79.6	2.73	OVF LM VF/XLN	FOSS	SCAT PYR	
37	11885.0-86.0	<0.01	*	0.4	0.0	47.4	2.73	OVF LM VF/XLN	FOSS	SCAT PYR	
38	11886.0-87.0	0.01	*	0.6	0.0	66.1	2.72	OVF LM VF/XLN	FOSS		
39	11887.0-88.0	0.05	*	0.5	0.0	61.3	2.72	OVF LM VF/XLN	FOSS		
40	11888.0-89.0	<0.01	*	0.4	0.0	58.5	2.72	OVF LM VF/XLN	FOSS		
41	11889.0-90.0	0.01	*	0.7	0.0	65.0	2.75	OVF LM VF/XLN	FOSS		
42	11890.0-91.0	<0.01	*	0.8	0.0	52.8	2.73	OVF LM VF/XLN	FOSS		
43	11891.0-92.0	<0.01	*	0.9	0.0	60.3	2.75	OVF LM FN/XLN	FOSS		
44	11892.0-93.0	<0.01	*	1.0	0.0	59.2	2.73	OVF LM FN/XLN	FOSS		

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

PAGE 2

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2

DATE : 12-20-82  
FORMATION : SINBAD

FILE NO : 3807-0024  
ANALYSTS : R. MOHL

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION	
45	11893.0-94.0	<0.01	*	0.4	0.0	85.5	2.73	OVF	LM VF/XLN FOSS STYO
46	11894.0-95.0	<0.01	*	0.8	0.0	74.4	2.74	OVF	LM VF/XLN FOSS
47	11895.0-96.0	0.53	*	1.2	0.0	41.7	2.74	OVF	LM FN/XLN FOSS STYO
48	11896.0-97.0	<0.01	*	1.1	0.0	57.0	2.75	OVF	LM FN/XLN FOSS
49	11897.0-98.0	<0.01	*	1.3	0.0	65.2	2.75	OVF	LM FN/XLN FOSS
50	11898.0-99.0	0.02	*	1.6	0.0	77.1	2.75	OVF	LM FN/XLN FOSS
51	11899.0-00.0	<0.01	*	1.4	0.0	71.3	2.76		DOLO FN/XLN FOSS LHY
52	11900.0-01.0	<0.01	<0.01	0.7	0.0	82.0	2.77	CVF	DOLO FN/XLN FOSS LMY
53	11901.0-02.0	<0.01	*	0.9	0.0	85.1	2.78	CVF	DOLO FN/XLN FOSS LMY
54	11902.0-03.0	0.01	0.01	1.0	0.0	80.8	2.77		DOLO FN/XLN FOSS LMY
55	11903.0-04.0	0.01	0.01	1.2	0.0	89.4	2.78	CVF	DOLO VF/XLN FOSS LMY
56	11904.0-05.0	0.02	<0.01	0.8	0.0	89.9	2.78	CVF	DOLO VF/XLN FOSS LMY
57	11905.0-06.0	<0.01	*	0.5	0.0	83.9	2.77	OVF	DOLO VF/XLN FOSS LMY
58	11906.0-07.0	<0.01	*	1.3	0.0	80.5	2.80	OVF	DOLO VF/XLN FOSS LMY
59	11907.0-08.0	0.01	0.01	1.7	0.0	60.5	2.77	OVF	LM FN/XLN FOSS
60	11908.0-09.0	<0.01	*	1.2	0.0	43.4	2.74	OVF	LM FN/XLN FOSS
61	11909.0-10.0	0.01	0.01	1.0	0.0	59.1	2.76		LM FN/XLN FOSS
62	11910.0-11.0	0.02	0.02	1.0	0.0	63.0	2.78		DOLO VF/XLN FOSS V/LMY
63	11911.0-12.0	0.06	*	1.8	0.0	93.9	2.81	OVF	DOLO VF/XLN
64	11912.0-13.0	<0.01	<0.01	0.4	0.0	86.9	2.78		DOLO VF/XLN
65	11913.0-14.0	<0.01	*	0.5	0.0	78.0	2.78		DOLO VF/XLN
66	11914.0-15.0	<0.01	*	0.4	0.0	88.0	2.77		DOLO VF/XLN
67	11915.0-16.0	<0.01	*	0.6	0.0	91.9	2.78		DOLO VF/XLN SDY
68	11916.0-17.0	0.01	<0.01	0.8	0.0	92.0	2.78		DOLO VF/XLN
69	11917.0-18.0	0.01	0.01	1.0	0.0	89.0	2.79		DOLO VF/XLN FOSS
70	11918.0-19.0	0.31	*	2.5	33.1	56.7	2.83		DOLO VF/XLN
71	11919.0-20.0	0.53	*	3.5	57.1	28.5	2.83		DOLO VF/XLN-SUC
72	11920.0-21.0	0.17	0.13	2.1	39.2	26.1	2.80		DOLO SUC
73	11921.0-22.0	0.08	0.05	1.2	44.4	38.0	2.82		DOLO VF/XLN-SUC SDY
74	11922.0-23.0	<0.01	<0.01	0.6	27.5	65.9	2.79		DOLO VF/XLN-SUC SHLY

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

PAGE 3

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2

DATE : 12-20-82  
FORMATION : SINRAD

FILE NO : 3807-0024  
ANALYSTS : R. MOHL

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
75	11923.0-24.0	0.01	<0.01	0.7	0.0	90.7	2.80	DOLO VF/XLN FOSS
76	11924.0-25.0	0.01	0.01	0.6	0.0	92.7	2.79	DOLO VF/XLN SHLY
77	11925.0-26.0	0.01	0.01	0.9	0.0	91.7	2.86	DOLO VF/XLN FYR
78	11926.0-27.0	0.01	<0.01	0.7	43.7	35.0	2.83	DOLO VF/XLN SDY
79	11927.0-28.0	<0.01	<0.01	0.6	0.0	62.3	2.85	DOLO VF/XLN SHLY ANHY
80	11928.0-29.0	<0.01	<0.01	0.7	0.0	89.7	2.89	DOLO VF/XLN SHLY ANHY
81	11929.0-30.0	0.01	<0.01	0.6	0.0	50.3	2.87	DOLO VF/XLN ANHY
82	11930.0-31.0	0.10	*	0.4	0.0	78.5	2.82	SHALE ANHY
83	11931.0-32.0	0.01	*	0.4	0.0	82.5	2.85	SHALE ANHY
84	11932.0-33.0	<0.01	*	0.4	0.0	84.7	2.84	SHALE ANHY
85	11933.0-34.0	<0.01	<0.01	0.3	0.0	57.1	2.85	ANHY DOLO
86	11934.0-35.0	0.01	0.01	0.9	0.0	49.9	2.80	ANHY DOLO
87	11935.0-36.0	<0.01	*	0.4	0.0	87.1	2.81	DOLO VF/XLN ANHY
88	11936.0-37.0	<0.01	*	0.4	0.0	86.1	2.79	DOLO VF/XLN ANHY
89	11937.0-38.0	0.01	*	4.0	50.5	11.2	2.82	DOLO VF/XLN ANHY
90	11938.0-39.0	0.03	*	4.6	72.8	10.4	2.82	OVF DOLO VF/XLN ANHY
91	11939.0-40.0	<0.01	*	1.2	39.3	31.4	2.82	DOLO VF/XLN ANHY V/PYR
92	11940.0-41.0	0.01	*	0.8	0.0	86.8	2.80	DOLO VF/XLN ANHY
93	11941.0-42.0	<0.01	*	0.7	0.0	76.1	2.85	DOLO VF/XLN ANHY
94	11942.0-43.0	<0.01	*	1.1	0.0	88.7	2.85	CVF DOLO VF/XLN ANHY
95	11943.0-44.0	0.01	*	0.5	0.0	89.7	2.82	OVF SHALE V/ANHY
96	11944.0-45.0	<0.01	*	0.4	0.0	82.5	2.79	SHALE V/ANHY
97	11945.0-46.0	0.01	<0.01	0.6	0.0	85.9	2.83	ANHY SHLY
98	11946.0-47.0	<0.01	<0.01	0.4	0.0	73.5	2.82	ANHY DOLO
99	11947.0-48.0	<0.01	*	0.4	0.0	88.0	2.83	DOLO VF/XLN ANHY
	11948.0-49.0							LOST CORE

\* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS  
CVF=CLOSED VERTICAL FRACTURE OVF=OPEN VERTICAL FRACTURE

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

PAGE 1

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2  
WILDCAT  
GARFIELD COUNTY, UTAH

DATE : 12-24-82  
FORMATION : KAIBAB  
DRLG. FLUID: WBM  
LOCATION : SE SW SEC. 2 T33S R45W

FILE NO : 3807-0024  
ANALYSTS : R. MOHL  
ELEVATION: 7342 GL

CONVENTIONAL ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM K <sub>a</sub> MAXIMUM	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
	11949.0-54.0						DRILLED
100	11954.0-55.0	<0.01	0.6	0.0	74.4	2.79	DOLO VF/XLN PYR ANHY
101	11955.0-56.0	0.02	0.8	0.0	51.4	2.75	DOLO VF/XLN ANHY
102	11956.0-57.0	0.05	0.4	0.0	83.6	2.79	CVF DOLO VF/XLN ANHY
103	11957.0-58.0	<0.01	1.8	0.0	47.2	2.85	CVF DOLO VF/XLN ANHY
104	11958.0-59.0	0.14	2.1	0.0	57.3	2.85	CVF DOLO VF/XLN
105	11959.0-60.0	<0.01	2.2	0.0	77.1	2.85	CVF DOLO VF/XLN
106	11960.0-61.0	<0.01	1.6	0.0	64.3	2.83	CVF DOLO VF/XLN SCAT PYR
107	11961.0-62.0	<0.01	0.8	0.0	91.4	2.71	DOLO VF/XLN PYR SHLY
108	11962.0-63.0	0.01	1.6	0.0	24.8	2.72	CVF SD FN S & P
109	11963.0-64.0	0.05	1.5	0.0	70.7	2.81	CVF SD FN S & P SCAT PYR
110	11964.0-65.0	0.11	1.8	0.0	64.0	2.76	CVF DOLO VF/XLN
111	11965.0-66.0	0.17	1.4	0.0	76.0	2.72	SD VFG SHLY PYR
112	11966.0-67.0	<0.01	0.7	0.0	83.3	2.71	SD VFG PYR DOLO
113	11967.0-68.0	0.01	0.9	0.0	88.9	2.77	DOLO VF/XLN SHLY PYR
114	11968.0-69.0	<0.01	1.2	0.0	26.2	2.69	SD VFG-CSE S & P DOLO
115	11969.0-70.0	<0.01	1.4	0.0	35.3	2.70	CVF SD VFG-CSE S & P
116	11970.0-71.0	<0.01	2.0	0.0	38.3	2.85	CVF DOLO VF/XLN ANHY
117	11971.0-72.0	0.35	2.6	0.0	76.9	2.86	CVF DOLO VF/XLN ANHY SDY
118	11972.0-73.0	0.02	2.7	0.0	37.6	2.81	CVF DOLO VF/XLN ANHY SDY
119	11973.0-74.0	0.02	3.6	0.0	28.2	2.80	CVF DOLO VF/XLN ANHY SDY
120	11974.0-75.0	0.01	3.7	0.0	49.2	2.80	DOLO VF/XLN LMY SDY
121	11975.0-76.0	0.14	3.6	0.0	54.4	2.73	DOLO VF/XLN V/SDY
122	11976.0-77.0	0.02	4.0	0.0	85.8	2.83	CVF DOLO VF/XLN SDY ANHY
123	11977.0-78.0	0.15	3.7	0.0	78.1	2.72	DOLO VF/XLN V/SDY
124	11978.0-79.0	0.04	4.5	0.0	62.9	2.76	CVF DOLO VF/XLN V/SDY
125	11979.0-80.0	0.03	4.5	0.0	67.7	2.77	CVF DOLO VF/XLN V/SDY
126	11980.0-81.0	0.03	3.9	0.0	70.6	2.78	CVF DOLO VF/XLN V/SDY

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CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

PAGE 2

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2

DATE : 12-24-82  
FORMATION : KAIBAB

FILE NO : 3807-0024  
ANALYSTS : R. MOHL

CONVENTIONAL ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM K <sub>a</sub> MAXIMUM	POR. H <sub>e</sub>	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION		
127	11981.0-82.0	0.09	3.4	0.0	83.5	2.79	CVF	DOLO VF/XLN	V/SDY ANHY
128	11982.0-83.0	0.02	3.6	0.0	83.2	2.84	CVF	DOLO VF/XLN	V/SDY ANHY

CVF=CLOSED VERTICAL FRACTURE

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2

DATE : 12-24-82  
FORMATION : SHINARUMP

FILE NO. : 3807-0024  
ANALYSTS : R. MOHL

\*\*\* CORE SUMMARY AVERAGES FOR 1 ZONE \*\*\*

DEPTH INTERVAL: 10304.0 TO 10320.0

FEET OF CORE ANALYZED : 16.0      FEET OF CORE INCLUDED IN AVERAGES: 16.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY HORIZONTAL RANGE (MD.)	:	0.01 TO	1.0	(UNCORRECTED FOR SLIPPAGE)
HELIUM POROSITY RANGE (%)	:	0.0 TO	100.0	
OIL SATURATION RANGE (%)	:	0.0 TO	100.0	
WATER SATURATION RANGE (%)	:	0.0 TO	100.0	

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 10304.0 TO 10320.0

AVERAGE PERMEABILITY (MILLIDARCIES)

ARITHMETIC PERMEABILITY	:	0.35
GEOMETRIC PERMEABILITY	:	0.28
HARMONIC PERMEABILITY	:	0.21

PRODUCTIVE CAPACITY (MILLIDARCY-FEET)

ARITHMETIC CAPACITY	:	5.7
GEOMETRIC CAPACITY	:	4.6
HARMONIC CAPACITY	:	3.4

AVERAGE POROSITY (PERCENT) : 7.0

AVERAGE TOTAL WATER SATURATION : 74.0  
(PERCENT OF PORE SPACE)

AVERAGE RESIDUAL OIL SATURATION : 0.0  
(PERCENT OF PORE SPACE)

AVERAGE CONNATE WATER SATURATION \*\* :  
(PERCENT OF PORE SPACE)

\*\* ESTIMATED FROM TOTAL  
WATER SATURATION.

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2

DATE : 12-24-82  
FORMATION : SINBAD-KAIBAB

FILE NO. : 3807-0024  
ANALYSTS : R. MOHL

\*\*\* CORE SUMMARY AVERAGES FOR 1 ZONE \*\*\*

DEPTH INTERVAL: 11865.0 TO 11983.0

FEET OF CORE ANALYZED : 112.0      FEET OF CORE INCLUDED IN AVERAGES: 112.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY HORIZONTAL RANGE (MD.)	:	0.00 TO	1.0 (UNCORRECTED FOR SLIPPAGE)
HELIUM POROSITY RANGE (%)	:	0.0 TO	100.0
OIL SATURATION RANGE (%)	:	0.0 TO	100.0
WATER SATURATION RANGE (%)	:	0.0 TO	100.0

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 11865.0 TO 11983.0

AVERAGE PERMEABILITY (MILLIDARCIES)

ARITHMETIC PERMEABILITY	:	0.04
GEOMETRIC PERMEABILITY	:	0.01
HARMONIC PERMEABILITY	:	0.00

PRODUCTIVE CAPACITY (MILLIDARCY-FEET)

ARITHMETIC CAPACITY	:	4.8
GEOMETRIC CAPACITY	:	1.1
HARMONIC CAPACITY	:	0.50

AVERAGE POROSITY (PERCENT) : 1.3

AVERAGE TOTAL WATER SATURATION : 61.1  
(PERCENT OF PORE SPACE)

AVERAGE RESIDUAL OIL SATURATION : 7.9  
(PERCENT OF PORE SPACE)

AVERAGE CONNATE WATER SATURATION \*\* :  
(PERCENT OF PORE SPACE)

\*\* ESTIMATED FROM TOTAL  
WATER SATURATION.

FORMATION: SHINARUMP

PERMEABILITY VS POROSITY

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

AIR PERMEABILITY : MD - HORIZONTAL ( UNCORRECTED FOR SLIPPAGE )  
POROSITY : PERCENT ( HELIUM )

DEPTH INTERVAL	RANGE & SYMBOL	PERMEABILITY		POROSITY		POROSITY AVERAGE	PERMEABILITY AVERAGES		
		MINIMUM	MAXIMUM	MIN.	MAX.		ARITHMETIC	HARMONIC	GEOMETRIC
10304.0 - 10320.0	1 (+)	0.010	1.0	0.0	10.0	7.0	0.35	0.21	0.28

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :  
 $\text{LOG}(K) = (\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT}$   
 $K = \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT})$

RANGE	EQUATION OF THE LINE
1	$\text{PERM} = \text{ANTILOG}((0.3315)(\text{POROSITY}) + -2.8758)$



SHINARUMP Fm.

PERMEABILITY: MILLIDARCIES

0.1

0.01

0.0

2.0

4.0

6.0

8.0

10.0

12.0

POROSITY: PERCENT

PERMEABILITY VS. POROSITY

ARCO EXPLORATION COMPANY

DIXIE UNIT NO. 2

WILDCAT

GARFIELD COUNTY, UTAH

FORMATION: SHINARUMP

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

AIR PERMEABILITY : MD. ( HORIZONTAL ) RANGE USED 0.010 TO 1.  
POROSITY : PERCENT ( HELIUM ) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 10304.0 - 10320.0 INTERVAL LENGTH : 16.0  
FEET ANALYZED IN ZONE : 16.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
7.0	0.35	0.21	0.28

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
4.0 - 6.0	2.0	5.1	0.268	0.280	12.5	12.5
6.0 - 8.0	11.0	7.0	0.253	0.323	68.7	81.2
8.0 - 10.0	3.0	8.3	0.462	0.523	18.7	100.0

TOTAL NUMBER OF FEET = 16.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FRQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.039 - 0.078	1.0	0.070	0.070	6.9	6.2	6.2
0.078 - 0.156	3.0	0.105	0.107	7.1	18.7	25.0
0.156 - 0.312	3.0	0.234	0.237	6.5	18.7	43.7
0.312 - 0.625	8.0	0.466	0.471	7.1	50.0	93.7
0.625 - 1.250	1.0	0.810	0.810	8.0	6.2	100.0

TOTAL NUMBER OF FEET = 16.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
 FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
 COUNTY, STATE: GARFIELD COUNTY, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
-----	-----	-----	-----	-----	-----	-----
0.0	0.0	0.0	16.0	100.0	7.0	7.1
2.0	0.0	0.0	16.0	100.0	7.0	7.1
4.0	0.0	0.0	16.0	100.0	7.0	7.1
6.0	2.0	9.2	14.0	90.8	7.3	
8.0	13.0	77.8	3.0	22.2	8.3	
10.0	16.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 112.5

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

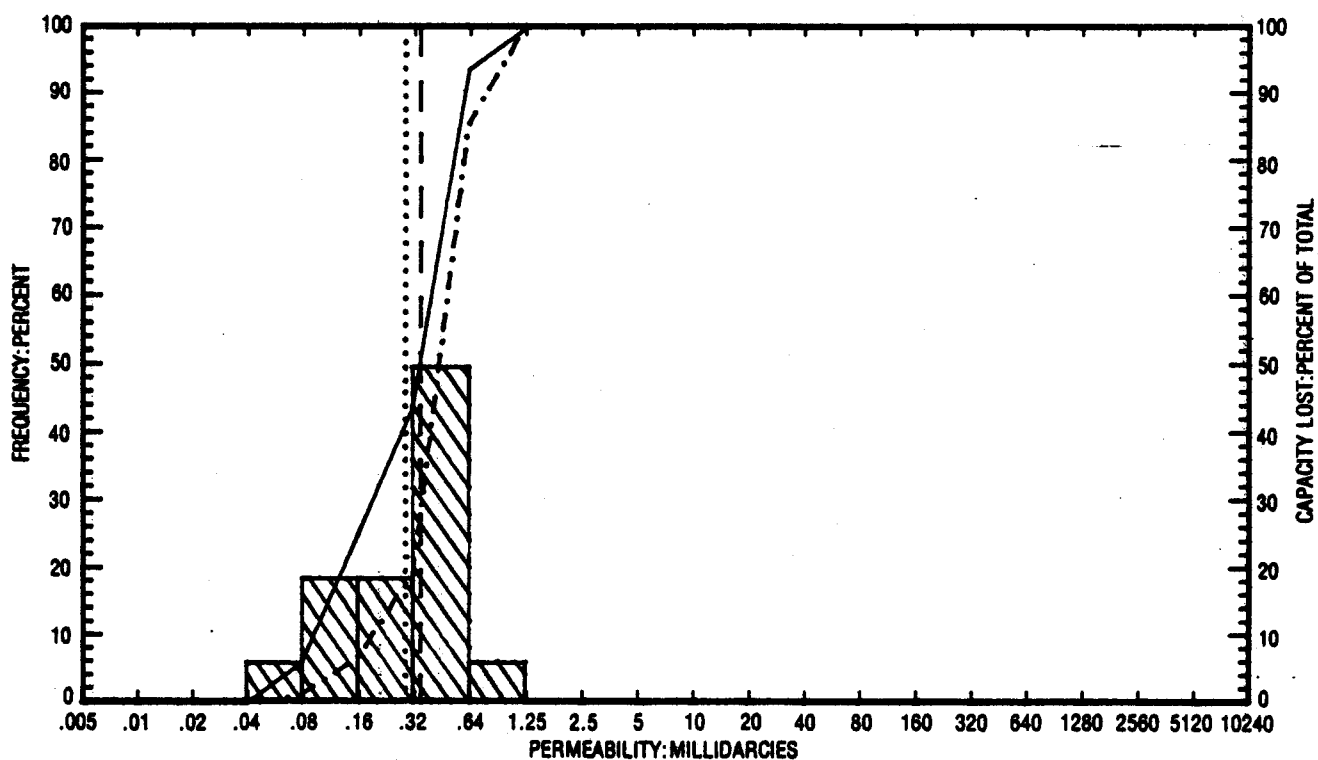
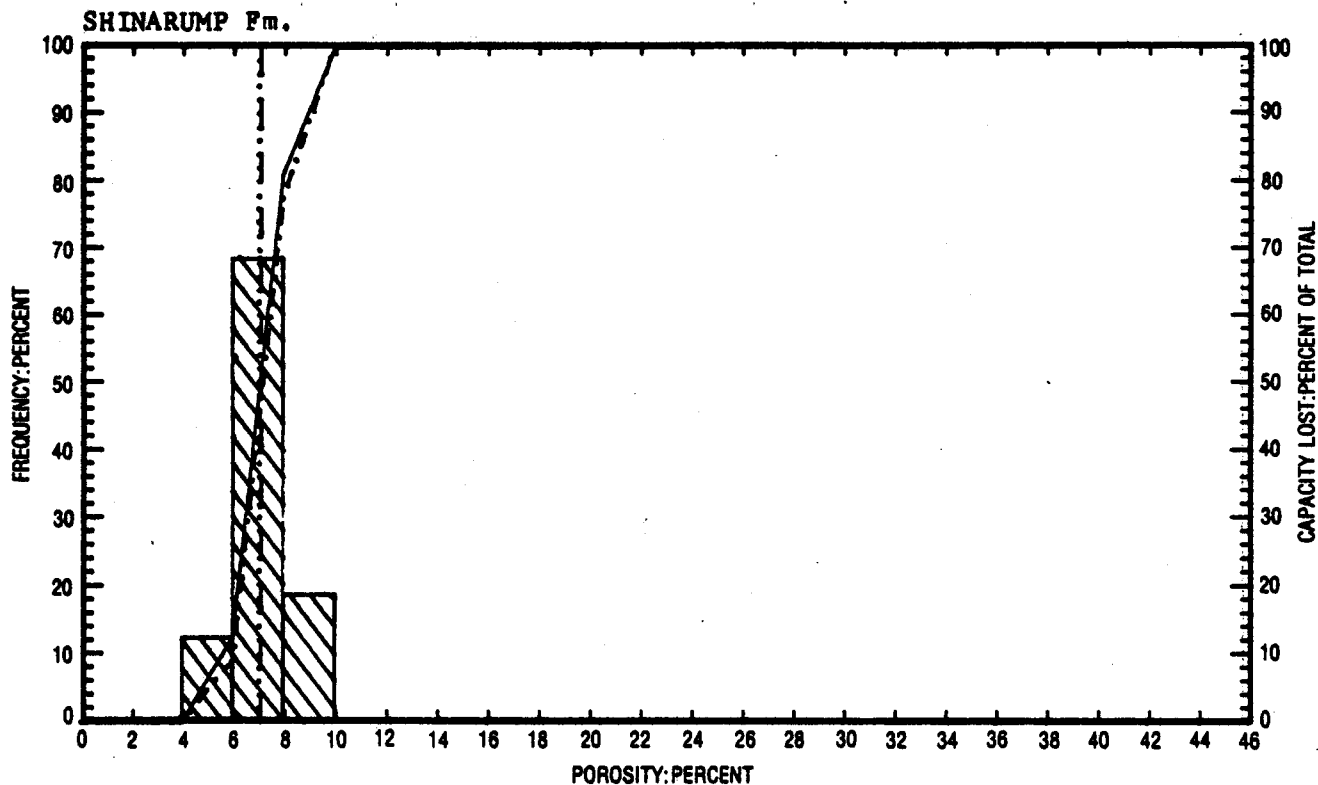
COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	16.0	100.0	0.28	0.34
0.010	0.0	0.0	16.0	100.0	0.30	0.34
0.020	0.0	0.0	16.0	100.0	0.28	0.34
0.039	0.0	0.0	16.0	100.0	0.28	0.34
0.078	1.0	1.2	15.0	98.8	0.31	0.36
0.156	4.0	6.9	12.0	93.1	0.41	0.41
0.312	7.0	19.4	9.0	80.6	0.50	
0.625	15.0	85.7	1.0	14.3	0.81	
1.	16.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 5.68



### PERMEABILITY AND POROSITY HISTOGRAMS

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2  
WILDCAT  
GARFIELD COUNTY, UTAH

**LEGEND**

ARITHMETIC MEAN POROSITY .....  
GEOMETRIC MEAN PERMEABILITY .....  
MEDIAN VALUE .....  
CUMULATIVE FREQUENCY .....  
CUMULATIVE CAPACITY LOST .....

FORMATION: SINBAD-KAIBAB

PERMEABILITY VS POROSITY

COMPANY: ARCO EXPLORATION COMPANY  
 FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
 COUNTY, STATE: GARFIELD COUNTY, UTAH

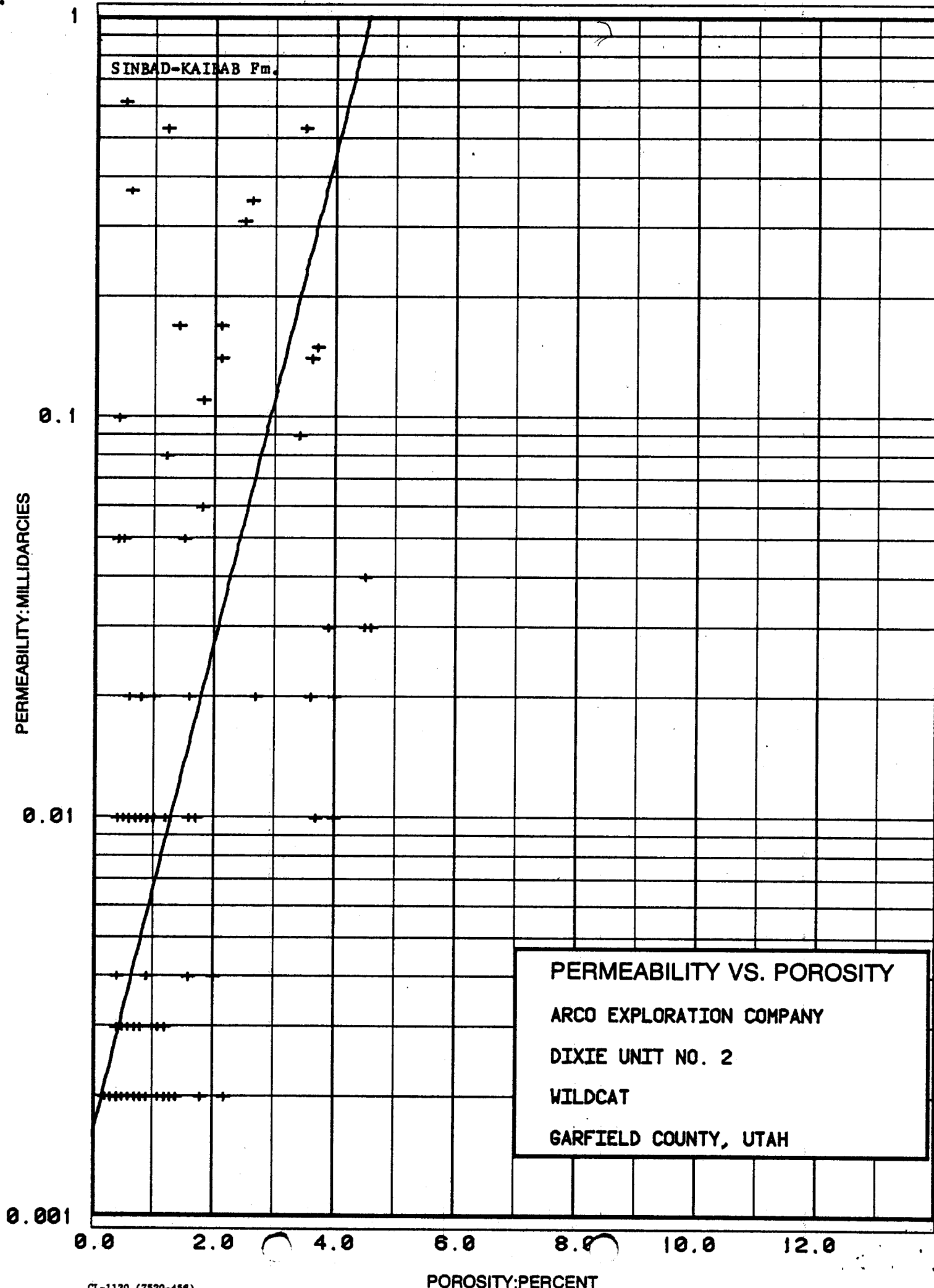
AIR PERMEABILITY : MD - HORIZONTAL ( UNCORRECTED FOR SLIPPAGE )  
 POROSITY : PERCENT ( HELIUM )

DEPTH INTERVAL	RANGE & SYMBOL	PERMEABILITY		POROSITY		POROSITY AVERAGE	PERMEABILITY AVERAGES		
		MINIMUM	MAXIMUM	MIN.	MAX.		ARITHMETIC	HARMONIC	GEOMETRIC
11865.0 - 11983.0	1 (+)	0.001	1.0	0.0	10.0	1.3	0.04	0.00	0.01

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :  
 $\text{LOG}(K) = (\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT}$   
 $K = \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT})$

RANGE	EQUATION OF THE LINE
1	PERM = ANTILOG(( 0.6169)(POROSITY) + -2.8056)





FORMATION: SINBAD-KAIBAB

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

AIR PERMEABILITY : MD. ( HORIZONTAL ) RANGE USED 0.001 TO 1.  
POROSITY : PERCENT ( HELIUM ) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 11865.0 - 11983.0 INTERVAL LENGTH : 118.0  
FEET ANALYZED IN ZONE : 112.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
1.3	0.04	0.00	0.01

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.0 - 2.0	92.0	0.8	0.010	0.031	82.1	82.1
2.0 - 4.0	15.0	3.0	0.056	0.133	13.4	95.5
4.0 - 6.0	5.0	4.3	0.024	0.026	4.5	100.0

TOTAL NUMBER OF FEET = 112.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
 FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
 COUNTY, STATE: GARFIELD COUNTY, UTAH

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM.		AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
-----	-----	(GEOM.)	(ARITH)	-----	-----	-----
0.005 - 0.010	48.0	0.005	0.005	0.8	42.9	42.9
0.010 - 0.020	32.0	0.010	0.010	1.0	28.6	71.4
0.020 - 0.039	12.0	0.022	0.022	2.6	10.7	82.1
0.039 - 0.078	5.0	0.050	0.050	1.7	4.5	86.6
0.078 - 0.156	7.0	0.113	0.116	2.3	6.2	92.9
0.156 - 0.312	3.0	0.208	0.217	2.0	2.7	95.5
0.312 - 0.625	5.0	0.466	0.480	1.7	4.5	100.0

TOTAL NUMBER OF FEET = 112.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.0	0.0	0.0	112.0	100.0	1.3	
2.0	92.0	52.7	20.0	47.3	3.3	
4.0	107.0	84.7	5.0	15.3	4.3	
6.0	112.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 141.2

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

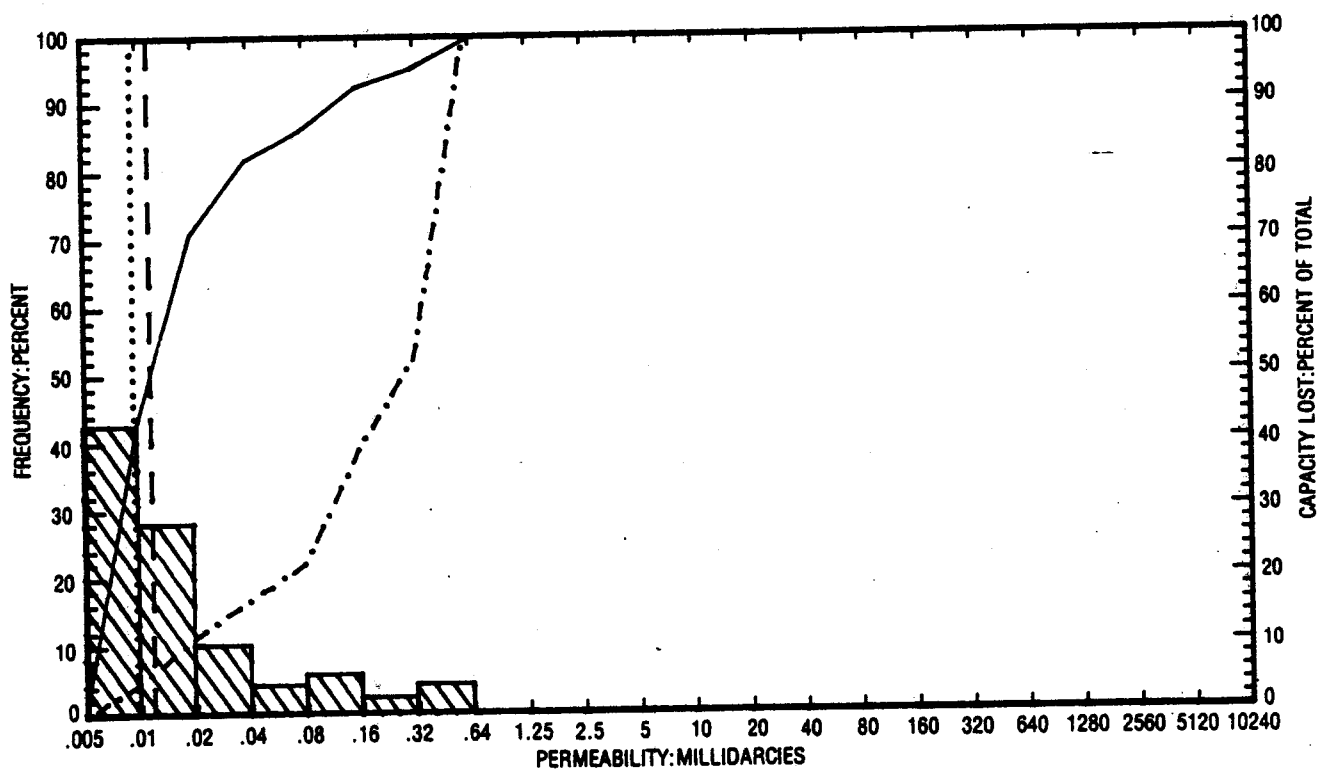
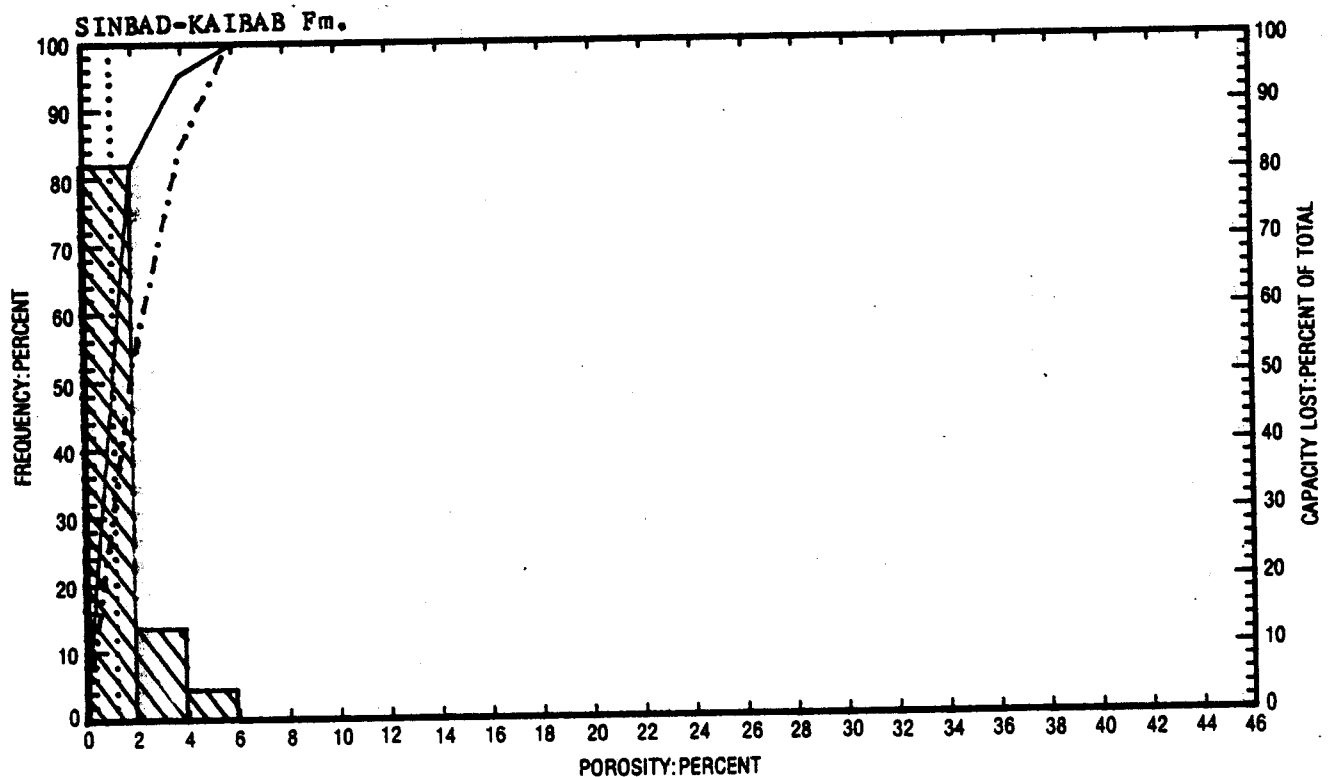
COMPANY: ARCO EXPLORATION COMPANY  
FIELD : WILDCAT

WELL : DIXIE UNIT NO. 2  
COUNTY, STATE: GARFIELD COUNTY, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	112.0	100.0	0.01	0.01
0.010	48.0	4.9	64.0	95.1	0.03	0.02
0.020	80.0	11.5	32.0	88.5	0.07	0.07
0.039	92.0	17.1	20.0	82.9	0.14	0.13
0.078	97.0	22.3	15.0	77.7	0.20	0.18
0.156	104.0	39.1	8.0	60.9	0.35	0.36
0.312	107.0	52.6	5.0	47.4	0.47	
1.	112.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 4.82



### PERMEABILITY AND POROSITY HISTOGRAMS

ARCO EXPLORATION COMPANY  
DIXIE UNIT NO. 2  
WILDCAT  
GARFIELD COUNTY, UTAH

**LEGEND**

ARITHMETIC MEAN POROSITY	.....
GEOMETRIC MEAN PERMEABILITY	.....
MEDIAN VALUE	----
CUMULATIVE FREQUENCY	=====
CUMULATIVE CAPACITY LOST	- - - - -

**CORE LABORATORIES, INC.****Petroleum Reservoir Engineering**

COMPANY ARCO EXPLORATION COMPANY FILE NO. 3807-0024  
 WELL DIXIE UNIT NO. 2 DATE 12-1-82 ENGRS. R. MOHL  
 FIELD WILDCAT FORMATION SHINARUMP ELEV. 7342 GL  
 COUNTY GARFIELD STATE UTAH DRG. FLD. WBM CORES \_\_\_\_\_

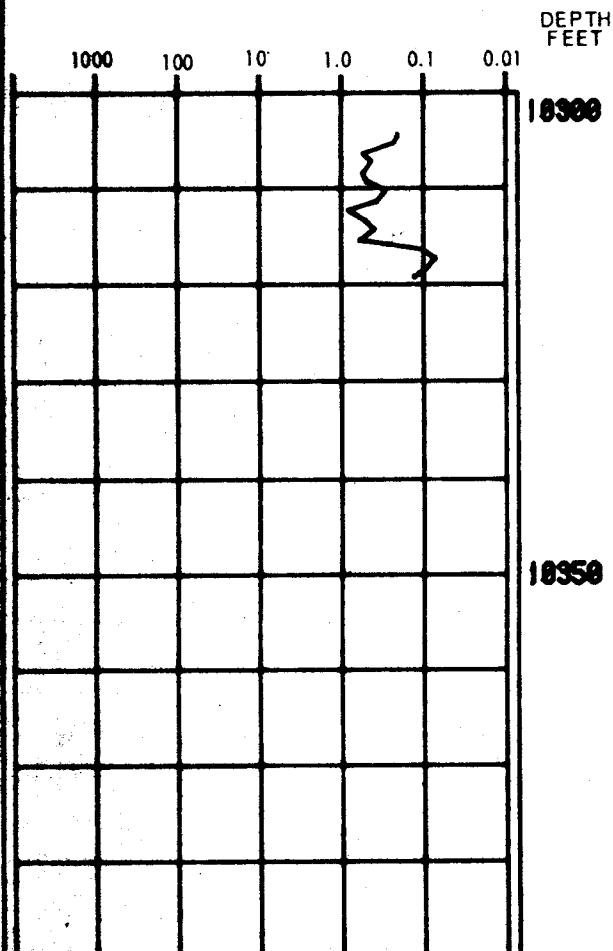
# CoRes Log

## CORE and RESISTIVITY EVALUATION

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use the report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted) but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proven operation or profitability of any oil, gas or other minerals well or sand in connection with which such report is used or relied upon.

RESISTIVITY PARAMETERS:  $a = 1.00$   $m = 2.00$   $n = 2.00$  Depths 10304 to 10320  
 $a =$  \_\_\_\_\_  $m =$  \_\_\_\_\_  $n =$  \_\_\_\_\_ Depths \_\_\_\_\_ to \_\_\_\_\_

PERMEABILITY  
 MILLIDARCIES X 1

**CORE ANALYSIS CALCULATED RESISTIVITY** $R_o =$  OHM-METERS AT 100%  $S_w$  \_\_\_\_\_ $R_{np} =$  OHM-METERS AT CRITICAL  $S_w$  \_\_\_\_\_← ONE OHM-METER REFERENCE FOR  $R_w = 0.01$ 



**CORE LABORATORIES, INC.****Petroleum Reservoir Engineering**

COMPANY ARCO EXPLORATION COMPANY FILE NO. 3807-0024  
 WELL DIXIE UNIT NO. 2 DATE 12-1-82 ENGRS. R. MOHL  
 FIELD WILDCAT FORMATION SINBAD-KAIBAB ELEV. 7342 GL.  
 COUNTY GARFIELD STATE UTAH DRLG. FLD. WBM CORES \_\_\_\_\_

# CoRes Log

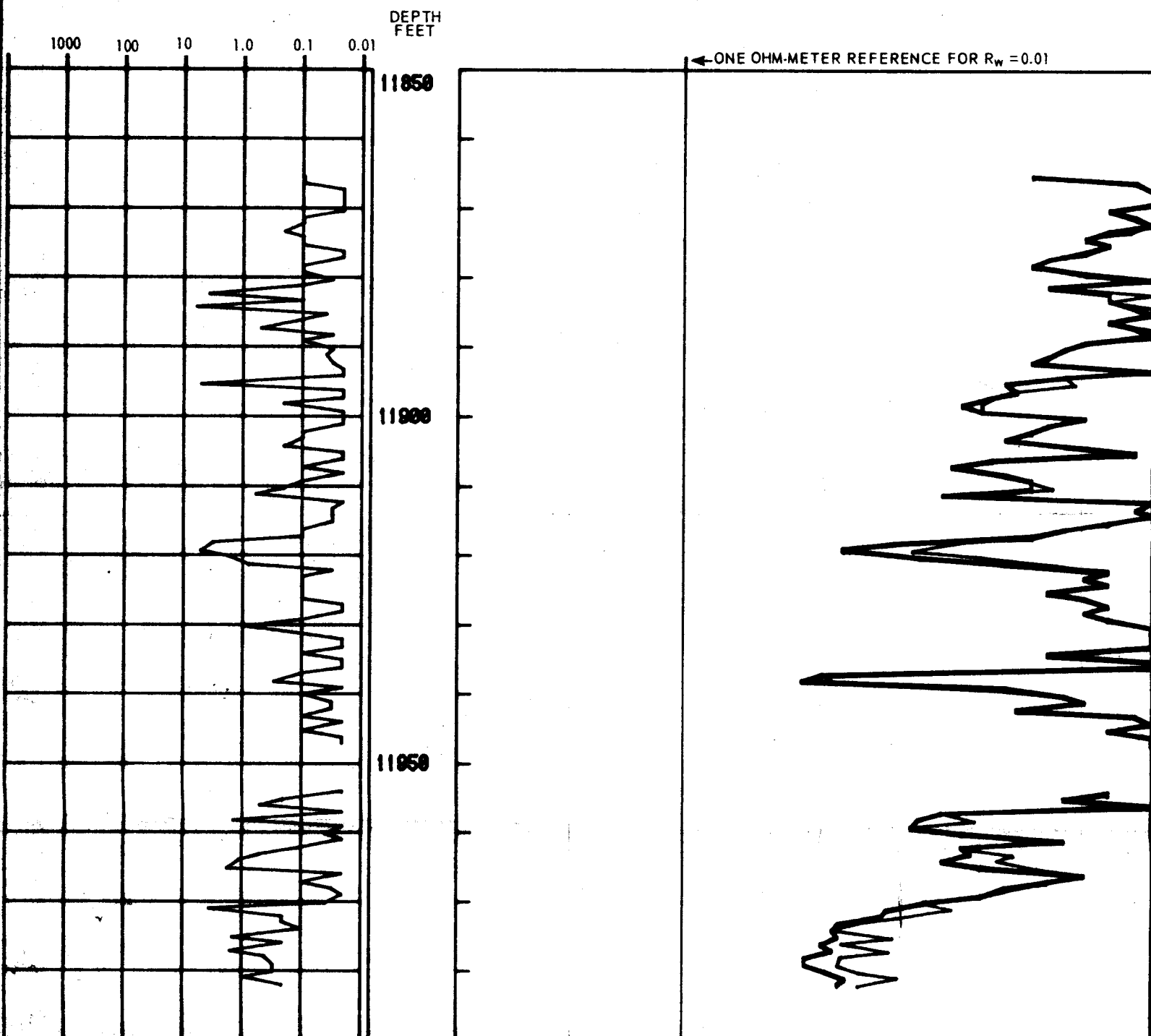
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RESISTIVITY PARAMETERS:  $a = 1.00$   $m = 2.00$   $n = 2.00$  Depths 11865 to 11983  
 $a =$   $m =$   $n =$  Depths to

**PERMEABILITY**

MILLIDARCIES X .1

**CORE ANALYSIS CALCULATED RESISTIVITY** $R_o$  = OHM-METERS AT 100%  $S_w$  \_\_\_\_\_ $R_{mp}$  = OHM-METERS AT CRITICAL  $S_w$  \_\_\_\_\_

**CORE LABORATORIES, INC.**



*Petroleum Reservoir Engineering*

COMPANY ARCO EXPLORATION CO.

FILE NO. 3807-0024

WELL DIXIE UNIT NO. 2

DATE 12-20-82

FIELD WILDCAT

FORMATION SINBAD-KAIBAB

ELEV. 7342 GL

COUNTY GARFIELD STATE UTAH

DRLG. FLD. WBM

CORES \_\_\_\_\_

LOCATION SE SW SEC. 2 T33S R45W

## CORRELATION COREGRAPH

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VERTICAL SCALE: 5" = 100'

**Gamma Ray**

RADIATION INCREASE →

**Permeability  $\times .01$**

MILLIDARCIES

**Porosity**

PERCENT

**Total Water**

PERCENT PORE SPACE

100 80 60 40 20 0

**Oil Saturation**

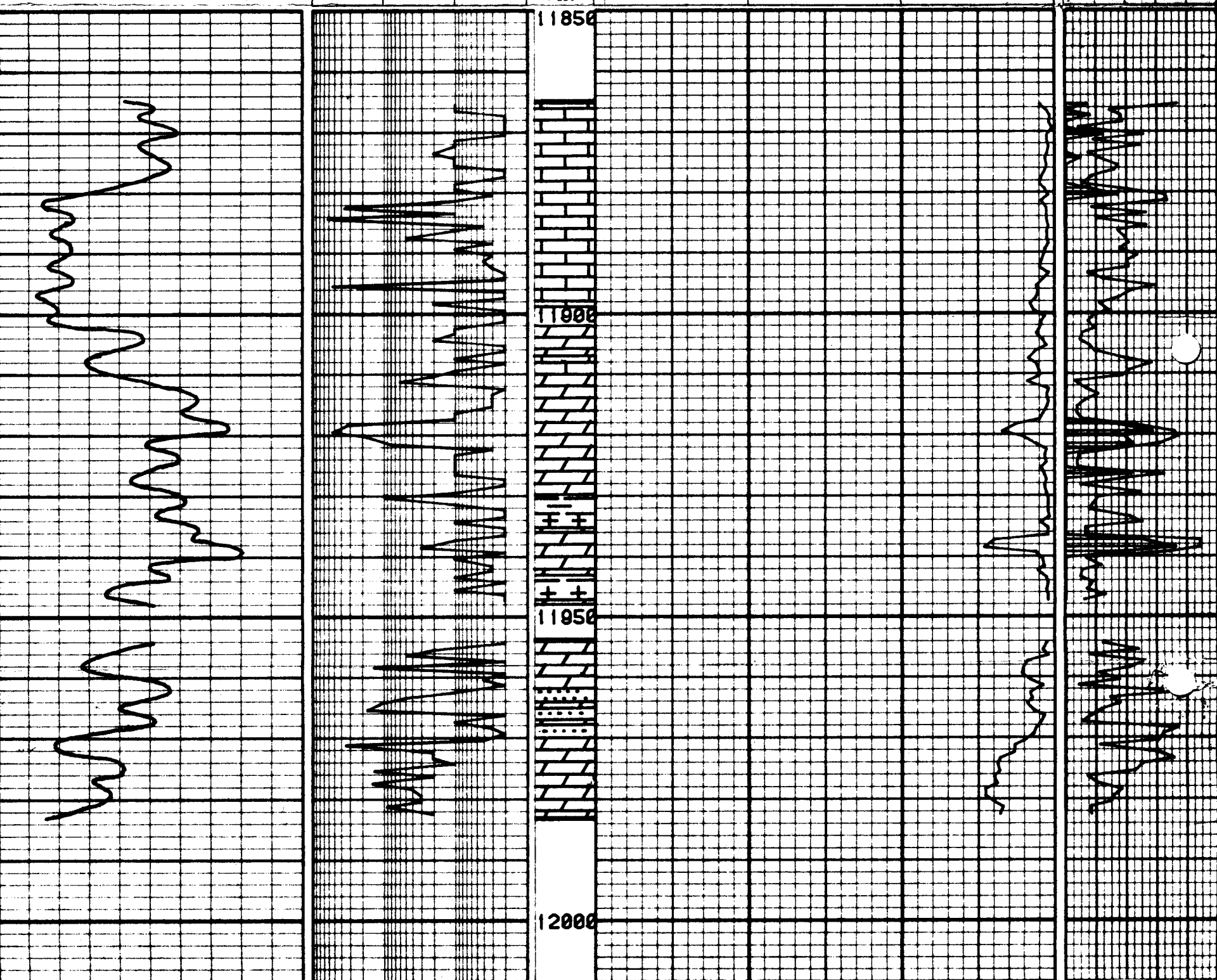
PERCENT PORE SPACE

0 0 20 40 60 80 100

100 10 1.0 .1 Depth Feet 30

20 10

0 0 20 40 60 80 100



**CORE LABORATORIES, INC.***Petroleum Reservoir Engineering*COMPANY ARCO EXPLORATION CO.FILE NO. 3807-0024WELL DIXIE UNIT NO. 2DATE 12-1-82FIELD WILDCATFORMATION SHINARUMPELEV. 7342 GLCOUNTY GARFIELDSTATE UTAHDRLG. FLD. WBM

CORES \_\_\_\_\_

LOCATION SE SW SEC. 2 T33S R45W

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VERTICAL SCALE: 5" = 100'

**Gamma Ray**

RADIATION INCREASE →

**Permeability  $\times .1$** 

MILLIDARCIES

**Porosity** \_\_\_\_\_

PERCENT

**Total Water** \_\_\_\_\_

PERCENT PORE SPACE

100 80 60 40 20 0

**Oil Saturation** \_\_\_\_\_

PERCENT PORE SPACE

0 0 20 40 60 80 100

100 10 1.0 .1

Depth  
Feet

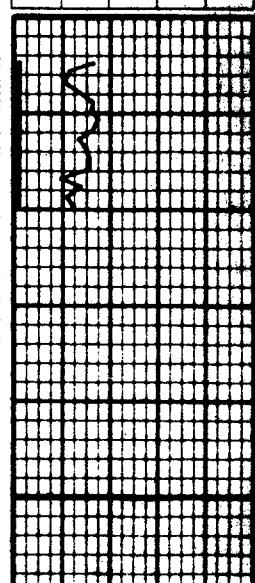
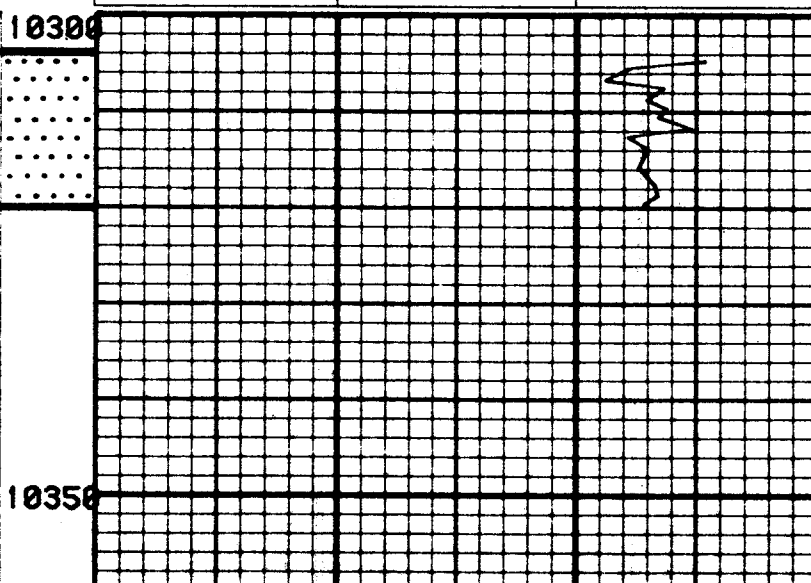
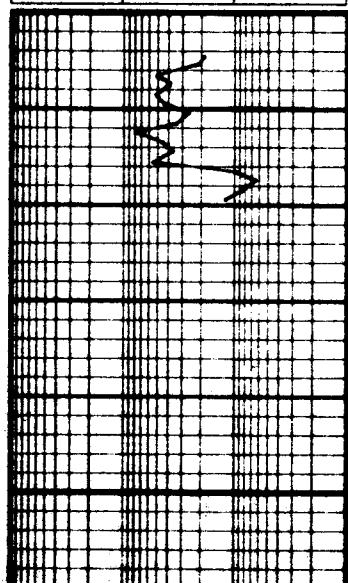
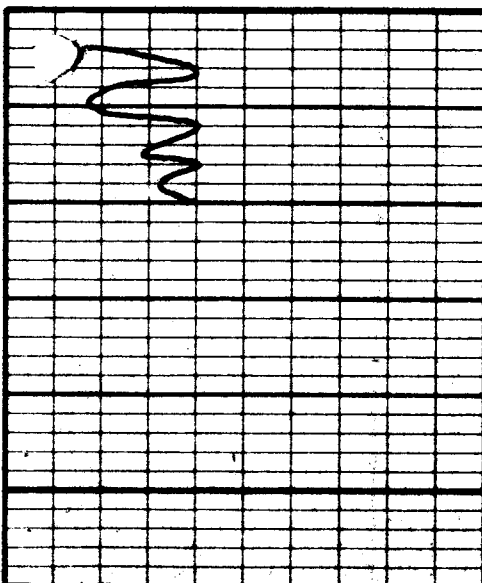
20

10

0

10300

10350





STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 31, 1984

ARCO Oil & Gas Company  
P. O. Box 5540  
Denver CO 80217

RE: Well No. Dixie Unit #2  
API #43-017-30115  
960' FSL, 1045' FWL SW/SW  
Sec. 2, T. 33S, R. 4 1/2W  
Garfield County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office March 7, 1983 on the above referred to well, indicates the following electric logs were run: FIL and Velocity Survey. As of today's date, this office has not received these logs.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

We will be happy to acknowledge receipt of your response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgment should avoid unnecessary mailing of a second notice from our agency.

Your prompt attention to the above will be greatly appreciated.

Respectfully,

A handwritten signature in cursive script that reads "Claudia Jones".

Claudia Jones  
Well Records Specialist

CJ/cj



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

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Respectfully,

Claudia Jones  
Well Records Specialist

CJ/cj

RECEIVED

FEB 5 1984

A.O.C. - LAND

ARCO Oil and Gas Company  
Rocky Mountain District  
707 17th Street  
Mailing address: P.O. Box 5540  
Denver, Colorado 80217  
Telephone 303 575 7000



RECEIVED  
MAR 26 1984

DIVISION OF  
OIL, GAS & MINING

As per your letter of 1-31-84, the Velocity Survey run on our Dixie Unit is a vertical seismic profile log on a seismic velocity check point log used to gain a better velocity analysis for our seismic work done in the area.

This type of information is considered Confidential and proprietary and is not customarily released.

*OK  
R.S. Firth*

*Did receive F12 log*